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The University of Southern Mississippi

COMMUNITY COLLEGE STUDENTS' PERCEPTIONS OF EFFECTIVE  
COMMUNICATION IN ONLINE LEARNING

by

Donna Alice Hill Parker

Abstract of a Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

May 2012

## ABSTRACT

# COMMUNITY COLLEGE STUDENTS' PERCEPTIONS OF EFFECTIVE COMMUNICATION IN ONLINE LEARNING

by Donna Alice Hill Parker

May 2012

This quantitative research project analyzed the application of instructional communication tools and techniques used by community college students to determine how they perceive communication in their online classes. Online students from a community college participated in this study by completing an electronic survey. Data analysis revealed that these participating students communicated primarily through written online communication tools such as posting of class notes, email, and discussions. Students lack exposure to more innovative communication tools such as teacher-made audio and video presentations or live conversations and demonstrations through the use of Wimba or other tools, which are readily available in the robust course management systems today. To produce more engaged and active learning experiences, online instructors need to employ a variety of communication tools to accommodate all learning styles.

Participants of this study do not perceive the effectiveness of their online communication to be as effective as communication in their traditional classes. Instructors cannot decrease transactional distance if they do not effectively utilize online communication tools to create meaningful interactions. Results also showed a strong correlation between communication and satisfaction levels of students regarding online classes. Students in this study indicated more satisfaction toward online classes when

effective communication maintained a strong presence. The study results also indicated that students identified effective communication as a major factor of motivation in completing an online class. Students reported communication-related barriers such as lack of community interaction, delayed responses from instructors, and an inhuman feel to the online experience.

Recommendations for practice included the following: (1) provide additional training for instructors on the effective uses of communication tools in online classes; (2) implement a mentoring program that pairs beginning or struggling online instructors with exemplary online instructors; and (3) develop a policy on virtual office hours that allows online instructors to schedule office hours for their online students outside of their traditional working hours. Virtual office hours allow students and instructors more opportunities for communication.

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Approved:

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Director

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Dean of the Graduate School

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## CHAPTER I

### INTRODUCTION

An instructor may be an expert in subject matter or content, but if he or she cannot effectively communicate the knowledge to students, then the transfer of learning does not take place. As the pedagogical frontier changes with the emergence of distance education, instructional communication must also change to meet these new challenges. Instructors and students utilize instructional communication to motivate and encourage thinking processes by using both verbal and nonverbal forms of communication (Mottet, Richmond, & McCroskey, 2006). Hurt, Scott, and McCroskey (1978) simply explain the difference between knowing and teaching is communication.

Instructors and students now have various new ways of communicating due to technological advancements. Emailing, texting, blogging, course managing systems, and social networking represent examples of modern communication tools that changed the face of instructional communication today (Edwards & Helvie-Mason, 2010). Students are no longer bound by written communication and static PowerPoint lecture notes. According to Edwards and Helvie-Mason (2010), “Examining this new direction in the process of communication between the educator and the student looks at the heart of the educational process and informs pedagogy and practice. Instructional communication, then, impacts the learning environment, the student-educator relationship, and the climate of the overall educational experience” (p. 175).

#### Statement of the Problem

As online enrollments soar across the nation, a need arises to ensure quality educational experiences for online students. New technologies, such as improved course

management systems, provide instructors the means to communicate with students in online classes to enrich their educational experiences. Effective communication strengthens the students' relationships with their instructors and other students, allowing them to grow as active learners. This research project measures how community college students perceive the effectiveness of communication in their online classes.

The following variables related to the research questions tested in this study are as follows:

1. Effective communication in online classes
2. Effective communication in traditional classes
3. Satisfaction with communication in online classes
4. Types of tools for online communication
5. Retention in online learning
6. Effective communication tools in online learning

#### Research Questions

This study analyzes the quality of instructional communication tools and techniques utilized by community college students in their online classes. The designs of the following research questions address students' perception of the effectiveness of communication in an online learning environment:

1. What types of communication tools do online students use with instructors and other students in online learning?
2. Which online communication tools do online students perceive to be more effective in communicating with instructors and other students?

3. Do online students perceive online communication to be as effective as communication in traditional classrooms?
4. Does communication in online classes affect the satisfaction level of students?
5. Does effective communication help in retaining students in online classes?

Students enrolled in online classes at a Mississippi community college completed a survey electronically on a voluntary basis. The survey provides information from the students to determine how they perceive the quality and effective use of communication and communication technologies in their online classes. The transfer of communication logged occurs between student and instructor as well as among students. The researcher attempts to determine which communication tools and techniques employed by instructors actively engage students in online classes.

#### Definition of Terms Related to Distance Education

*Active Learning:* Active learning engages students in their learning experiences. Students actively participating in projects or discussions represent examples of active learning.

*Adult Learner:* Adult learners are in a postsecondary environment and are over 18 years of age.

*Asynchronous Communication:* Communication that is not real-time. A delay of time exists between the message and response.

*Blog:* Blogs are journal-like Web pages relating to activities or themes. Visitors may post comments to blogs, but they cannot alter the content.

*Communication:* Interaction that takes place between student and instructor. Communication takes the form of text, audio, video, written discussions, sharing of

documents, and other formats. Communication is also referred to as dialog and interaction.

*Communication Tools:* For this study, communication tools are those tools necessary for communicating in online classes over the Internet. These tools include email, paging, discussion areas, chat, video or audio presentations, and others.

*Computer-Mediated Communications:* Any communication enabled through the use of a computer.

*Course Management System:* The software platform driving and supporting the online class. Course management systems also are known as learning management systems, online platforms, and virtual learning environments (Simonson, Smaldino, Albright, & Zvacek, 2009).

*Dialogue:* Dialogue includes all forms of communication and interactions (Moore, 1997).

*Digital Immigrants:* Older students without access to technologies, such as the computer, Internet, cell phones, etc., since birth.

*Digital Natives:* Students using accessible technologies, such as the computer, Internet, cell phones, etc., since birth.

*Distance Education:* Distance education refers to teaching and learning while students and instructors physically separated. Communication takes places through communication tools designed for distance education. According to Moore and Kearsley (2012), distance education remains synonymous with distance learning, e-learning, online learning, and distributed education.

*Distance Education Theories:* Accepted facts and concepts related to distance education and how they impact the field of distance education.

*Face-to-Face Classes:* Traditional classes, where students and teachers meet in a physical classroom at a regularly scheduled time.

*Interaction:* When two or more people communicate through some means and receive feedback regarding the actions performed as a result of the communication. The communication occurs through text, audio, video, the use of Web 2.0 tools, and other means. Interactions take place in a face-to-face situation or at a distance for online learning.

*Learning Community:* A learning community develops when students collaborate with each other on learning activities to achieve common outcomes.

*Online Learning:* Learning that takes place through the use of the Internet usually with the support of a course management system.

*Pager:* Desire2Learn contains a paging system that allows students to send messages to classmates or to their instructors. The paging system allows users to correspond privately.

*Podcast:* A podcast refers to an audio recording that plays through a computer or portable audio player such as an iPod. Instructors easily create and post podcasts of their lectures, instructions, reviews, etc., for online students' use at convenient times.

*Synchronous Communication:* Synchronous communication refers to real-time communication. Students and instructors send messages to each other, and they reply to the messages instantly. Examples of synchronous communications include live chat or instant messaging.

*Transactional Distance:* Transactional distance characterizes the psychological and educational distance between the teacher and student (Moore, 1984).

*Web 2.0 Tools:* Web 2.0 tools refer to the Web-based applications that allow students to collaborate, communicate, and share information in a virtual or online learning environment.

*Wikis:* Wikis emerged as a Web 2.0 tool and contain dedicated Web pages for users to collaborate and create or modify written projects. Users edit or delete contents of a wiki created by other users; however, wikis track users' changes.

*Wimba:* A virtual online meeting room that allows synchronous communication through video and audio presentations. Popular course management systems recently embedded Wimba as a communication tool for instructors and students.

#### Theoretical Basis

Michael Moore's transactional distance theory serves as the theoretical basis of this study. According to Moore's (1984) transactional distance theory, the distance between instructors and students in online classes leads to a communication gap that further separates instructors and students through a psychological and educational gap. This psychological gap is referred to as transactional distance. Online instructors must keep students actively involved and connected to the class through effective communication to reduce the transactional distance. When students do not receive proper and necessary communication, they feel isolated and less motivated, thereby increasing the transactional distance. Effective communication strengthens the instructor-student and student-student relationships, allowing students to become active learners and affording them a sense of belonging.



### Delimitations

The researcher recognizes the following delimitations of this study:

1. Survey participants were delimited to one community college in a statewide online consortium; therefore, inferences from this study should consider characteristics common to these students. The researcher selected the participating community college based on its high online enrollment of 3,671 nonduplicated students in the spring 2011 semester.
2. The Institutional Research and Planning Department of the community college extracted the data from the survey; therefore, the accuracy is dependent upon this department.
3. The data collected for this research is delimited to one community college's online course enrollees during one semester.

### Assumptions

The researcher recognizes the following assumptions of this study:

1. The conduction of this study operates under the assumption that the participating students read and comprehend the survey questions.
2. The conduction of this study operates under the assumption that the students completing the survey answer the questions honestly.
3. The conduction operates under the assumption that the students completing the survey are the students enrolled in the online classes.

### Rationale for the Study

With the tremendous enrollment growth in online classes over the past decade, faculty, administrators, and technology leaders realize and understand that distance

education surfaced as an integral and vital component of education. According to the Sloan Consortium, and as shown in Table 1, online enrollment increased from 1.6 million students in 2002 to 6.1 million students in 2010 (Allen & Seaman, 2011).

Table 1

*Total and Online Enrollment in Degree-Granting Postsecondary Institutions—Fall 2002 through Fall 2010*

	Total Enrollment	Annual Growth Rate Total Enrollment	Students Taking at least One Online Course	Annual Growth Rate Online Enrollment	Online Enrollment as a Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,602,970	NA	9.6%
Fall 2003	16,911,481	1.8%	1,971,397	23.0%	11.7%
Fall 2004	17,272,043	2.1%	2,329,783	18.2%	13.5%
Fall 2005	17,487,481	1.2%	3,180,050	36.5%	18.2%
Fall 2006	17,758,872	1.6%	3,488,381	9.7%	19.6%
Fall 2007	18,248,133	2.8%	3,938,111	12.9%	21.6%
Fall 2008	19,102,811	4.7%	4,606,353	16.9%	24.1%
Fall 2009	19,524,750	2.2%	5,579,022	21.1%	28.6%
Fall 2010	19,641,140	0.6%	6,142,280	10.1%	31.3%

Note. (Allen & Seaman, 2011).

Today's tech savvy students enjoy the ability to connect to family and friends at all times. They now desire a social aspect in their learning environment (Yuen & Yang, 2010). Through course management systems, Web 2.0 tools, and faster and more reliable Internet connections, instructors gained access to technological tools and resources to

create a learning atmosphere that actively involves students by enhancing their learning experiences (Alden, 2010; Kim, 2004).

Teachers seize opportunity to communicate online with their students in numerous ways. One option encourages instructors to create an introductory video that allows online students an instant connection with their instructors through sight and sound. According to Rose's (2009) study, online students felt that short instructor-made videos "enhance the learning process and gives [*sic*] greater depth to the expectations of the course materials" (p. 493). Another student's comment regarding instructor videos was "Putting a face and voice definitely adds a human component" (p. 493). Activities of this nature provide students with a comfort level knowing a human instructor provides guidance while facilitating class activities (Russo & Campbell, 2004). Another option prompts instructors to create an online slide presentation with narration over the slides. Free Web 2.0 tools enable instructors to create voice-enhanced slide shows. This audio presentation allows online students to hear inflections in their instructor's voice. Moreover, another option for use in online classes is that instructors may communicate with students synchronously and asynchronously. With the improvement of chat areas and other tools in course management systems over the last decade, synchronous communication remains available for instructors in the online environment. When utilized discussion areas encourage collaboration among students to promote and build learning communities. According to Suzanne Young's (2006) online teaching study:

The instructor is fully absorbed with communication, including e-mail, threaded discussions, and chats, and must work hard to meet the varied needs and demands of the students. When online teaching is effective—that is, when students benefit

most from an online course—teachers must remain visibly and actively involved in the learning, maybe even to a greater degree than in the traditional classroom.

(p. 74)

Professional development remains an important component of educational institutions' technology plans. Quality professional development programs train instructors to develop and implement sound online classes with current technologies. Professional development training assists instructors with the integration of technology and content that enhances the online learning environment by motivating and engaging the multiple learning styles of learners (Keengwe & Onchwari, 2009). Are instructors using current and emerging technologies to strengthen communication that fosters an engaged and connected learning community in online classes? Are the students satisfied with communication methods in their online classes? Instructional designers, instructors, administrators, and professional development coordinators need to know how communication in online classes is progressing. The uses of these results indicate how to strengthen and improve online learning environments to provide deeper learning experiences for students.

With online instruction considered in its infancy, continued research ensures the success and quality of online educational experiences. Better understanding of online learning provides significant insights that aid in the design of quality learning experiences for online students. If this study reveals the lack of communication skills and technologies needed in online classes, the results prompt administrators and technology leaders to focus more attention on the professional development aspect of technology plans. By doing so, these results support the implied need for instructor training in the

implementation and use of current and emerging technologies for the enhancement of communication in online classes. If students reveal satisfaction with communication skills and techniques in their online classes, the results indicate that instructors provide quality communication techniques necessary to enrich virtual learning environments.

## CHAPTER II

### LITERATURE REVIEW

This literature review comprises two sections. The first section of the review pertains to educational theories while the second part covers other components regarding distance education such as instructors' role, online communication tools, students' role, online learning communities and student retention. Overall, the literature review focuses on the vital aspects of communication in distance education.

#### Traditional Learning Theories

For centuries, educators and psychologists searched for ideal theories and designs to develop the perfect learning environments for students. During this quest many opinions and arguments developed over time concerning learning theories and instructional design models, which creates confusion at times. Instructional designers and instructors must complete thorough research of learning theories in order to make an informed, knowledge-based decision when selecting learning theories for both traditional and distance education classes. Gregory McLeod (2003) states, "Thus, understanding theoretical frameworks and properly incorporating them within the scope of instructional design is important for designers to effectively prepare and present instruction as well as for organizational entities to more precisely and efficiently address training-appropriate issues" (p. 35).

Traditionally, behaviorism, cognitivism, and constructivism, which are three popular learning theories, formed the theoretical basis of most learning environments before technology entered learning environments. While some instructors remain true to

behaviorism's teacher-centered instruction, other instructors venture toward constructivism's student-centered education.

### *Behaviorism*

Behaviorism's concern focuses on obtaining a correct response from a learner instead of the actual process of knowledge acquisition or learning. B. F. Skinner, a well-known psychologist, made many contributions to the wide-spread use of behaviorism. Eventually, Skinner molded behaviorism into "operant conditioning," based on the conception that any action a person or animal performed created a direct consequence. These consequences would either support the behavior or not; therefore, positive or negative reinforcement mold how people and animals react to a given stimulus. In the learning environment, this action translates, for example, as how an instructor provides immediate, positive feedback to a student giving a correct answer to a question. The instructor rewards the student with praise and a good grade. The positive reinforcement makes the student want to continue to do well in class (Learning Theories Knowledgebase, 2009).

McLeod (2003) identified three assumptions regarding behaviorism on which several well-known behaviorists agreed. The first assumption suggests that effective instruction is measured by observed behaviors rather than internal thought processes. Behaviorism concentrates on giving students only what they need to know. This method emphasizes the use of procedures such as rote drills, memorization processes, and word associations. The second assumption proposes the environment shapes behavior, not the student. The third assumption highlights the repetition and reinforcement needed to cultivate the desired behaviors or outcomes, which supports Skinner's contribution of

operant conditioning (McLeod, 2003). McLeod (2003) believes that behaviorism places more demand on the instructor because the instructor has to be resourceful in adapting to needs and changes in students, which proves time consuming for the instructor. The instructor also retains the task of keeping up the reinforcement efforts or takes a chance that the student's behavior will vanish. These actions require the instructor's attention and control at all times.

### *Cognitivism*

Unlike behaviorism, cognitivism concentrates on internal, active mental processes such as thinking, memory, and knowledge. Cognitivists view knowledge as schema, which refers to the existing knowledge structure; therefore, learning takes place when a change occurs in the schema of the learner. The cognitivism learning theory treats learners as human beings who need interaction to learn, which offers a contrast to behaviorism. Learner-participation rate increases because learners think for themselves. Cognitivism recognizes a learner's ability to think and to use his or her thought processes to achieve outcomes to solve problems.

According to Felix Modritscher (2006), cognitivism utilizes internal processing including thinking, memory, reflection, motivation, and abstractions. Cognitivism primarily focuses on the learner's ability to receive information, process information, and then transmit the information to long-term memory for later access. Cognitivism's strength remains in the students' retention of instructions. The instruction influences learners longer due to the connectivity of an existing schema. This commitment to memory contradicts the behaviorism learning theory where information received is more



likely to be forgotten because the information does not connect to an existing schema (McLeod, 2003).

The cognitivism theory treats learners as intelligent people who think for themselves. Cognitivism also builds on an existing base of information or schema and provides reasoning for connected actions (Kramlinger & Huberty, 1990). However, if learners lack existing schema in a certain subject area, the learners confront a disadvantage with the learning process. Consistent with behaviorism, cognitivism features very precise objectives and goals. These types of goals may not fully enhance the learning process because learners and instructors may become complacent with striving for minimum competencies instead of expanding or pushing competencies to the next level (McLeod, 2003).

### *Constructivism*

Simply stated, constructivism allows learners to construct their own knowledge from personal learning experiences (McLeod, 2003). In the constructivism learning theory, an active learning process takes place where knowledge comes from within the student, not from another person or an outside source. Learners build their own knowledge. Constructivists encourage multi-contextual learning to assure learners apply their constructed information effectively (Modritscher, 2006). While using the constructivism learning theory, the instructor takes on the role of facilitator by helping and guiding the learners instead of controlling them (Outsource2india, n.d.).

Constructivism allows implementation of course content delivery in a multitude of means. For example, using case studies offers learners the freedom and flexibility to analyze, interpret, and formulate results. Constructivism encourages active learning over

passive, inactive learning (McLeod, 2003). In addition, through social interactions with classmates and instructors, students construct and acquire knowledge that leads them to deeper understanding of course content (Loyens & Gijbels, 2008).

According to Mergel (1998), the learning theories of behaviorism, cognitivism, and constructivism relate to each other. Behaviorism and cognitivism learning theories appear in the foundation of constructivism. If a learner prefers behaviorism theory and finds comfort with the associated type of learning, then behaviorism merges with constructivism. On the other hand, constructivism welcomes cognitivism's mandated component of schema because prior knowledge expands and new knowledge forms in the constructivism learning theory (Mergel, 1998). Bradley (2011) promotes combining distance education research with learning outcomes based on the traditional learning theories of behaviorism, cognitivism, and constructivism to develop and nurture a comprehensive distance education theory.

#### Distance Education Theories

For more than two decades, technology reshaped how people live, work, and learn (Siemens, 2005). With online learning environments reshaping the face of education, relevant learning theories continue to lead education into the twenty-first century, now known as the digital age. Hodges (2009) states the following:

There is a positive correlation between the increase in new technology being integrated into society and the development of new theories on how to use technology as a catalyst for learning. The most prevalent of these new leaps in technology is the use of the Internet in teaching and learning. (para. 2)

With the rapid enrollment increases in distance education over the last two decades, attention focuses on distance education theories. As distance education theories continue to emerge and develop, Anderson (2003) theorizes that distance education theories remain grounded in the communication that takes place among students and instructors and the interaction students generate with course content. This section of the literature review emphasizes research focused on distance education theories related to the significant element of communication and its effect on the perception of transactional distance in the realm of distance education.

### *Theory of Transactional Distance*

With the advancements and growth in online education, Michael G. Moore's transactional distance theory emerged and gained notoriety in the online learning environment (Schneider, n.d.). Moore theorizes that the physical separations between instructors and learners "lead to communication gaps, a psychological space of potential misunderstandings between the behaviors of instructors and those of the learners" (Moore & Kearsley, 2006, p. 200). Moore (1984) describes the distance in education as follows: "There is now a distance between learner and teacher which is not merely geographic, but educational and psychological as well. It is a distance in the relationship of the two partners in the educational enterprise. It is a 'transactional distance'" (p. 155). Transactional distance correlates with the idea of the degree to which an instructor manages to motivate and engage students in their learning experiences. If a student remains disengaged and not actively participating in a class, the transactional distance widens. However, when an instructor motivates students into active learning, the transactional distance shrinks (Bender, 2003). According to Moore and Kearsley (2006),

transactional distance consists of three factors and three variables. The instructor, the students, and the means of communication make up the three factors. Moore and Kearsley (2006) reveal that if one factor is missing, the transactional distance disappears because “[t]here can be no educational transaction” (p. 200). According to the transactional distance theory, three variables delineate all distance education programs. These three variables represent dialogue, structure, and learner autonomy (Kang & Gyorke, 2008).

*Dialogue.* Online learning interactions are computer-mediated communications (Dennen, Darabi, & Smith, 2007). Dialogue includes all forms of communication and interactions. Communication comprises a key piece of the puzzle to assure effective online learning experiences (Simonson, Smaldino, Albright, & Zvacek, 2012). Separation of physical distance and time in an online learning environment increases chances for miscommunication between students and instructors, thereby widening the transactional distance (Moore, 1997). In addition, Moore (1997) emphasizes the quality of effective communication over the quantity or frequency of dialogue. Instructors need to focus on the effectiveness of communication and how learners interpret and interact to communication. Bender (2003) states, “My basic premise is that learning is best achieved through dialogue” (p. 56). Teaching and learning transpire through communication between teacher and learner and also among learners (Bender, 2003). According to Swan (2002), learners who frequently interacted with their instructors, other learners, and course content expressed a higher degree of satisfaction regarding their learning experiences. These three types of communication implemented in distance education follow: (a) instructor-to-learner, (b) learner-to-learner, and (c) learner-to-

content (Moore & Kearsley, 2006). These three types of communication contribute to the effectiveness of dialog in online learning environments.

The first discussion addresses instructor-to-learner communication. Means of communication affects dialogue and includes the exchange of words, actions, and ideas between the instructors and learners (Kang & Gyorke, 2008). As meaningful and effective dialogue or communication increases between instructors and learners in the course, the transactional distance of that course decreases (Bender, 2003). However, online learner-instructor interactions often lack components of communication such as body gestures, audible tone of voice, or instructor immediacy. Students easily detect gestures and verbal tones in face-to-face classes (Dennen et al., 2007). Russo and Campbell (2004) define immediacy as the psychological distance between the instructor and learners or how close or approachable students feel to their instructors through communications. Some students feel isolated if they perceive a lack of instructor communication or immediacy due to the missing visual or physical presence of the instructor (Dennen et al., 2007; Russo & Campbell, 2004). Learners feel more connected to their instructors when instructors employ nonverbal communication methods such as photographs, audio, or video presentations. This nonverbal communication serves to humanize instructors and students, thereby reducing the transactional distance (Moore, 1993).

Learner-to-learner communication appears readily available with the emergence of online communication tools. Web 2.0 tools, powerful course management systems, and faster Internet connectivity equip learners with the ability to communicate with each other anytime in their online classes. Such technologies as video communications

provide learners the means to communicate with each other when needed for assignments or socializing. The more learners interact with each other, isolation shrinks and stronger learning communities form (Smyth, 2011).

Learner-to-content interaction with course content must take place for learning to be constructed by the learner or groups of learners. Construction of knowledge occurs through content interaction planned and guided by the instructor (Smyth, 2011). Smyth (2011) believes that formal learning transpires through content interaction to achieve course objectives. Informal learning happens when students explore the content out of curiosity. Benson and Samarawickrema (2009) regard learner-to-content communication as elements of the structure of the online course. Simonson et al. (2009) suggest packaging instructional material in small, simple packets of information to provide learner necessary material to achieve learning objectives.

*Structure.* The structure in the transactional distance theory refers to the structure of the course, which describes the flexibility or rigidity of the elements in the course design. Structure refers to such components as course objectives, content matter, delivery and presentation strategies, and assessment methods. Flexible designs of structural components ensure meeting individual learner's needs. Learners do not acclimate to a course that is especially rigid by design (Kang & Gyorke, 2008). In a highly structured course, a greater probability exists that dialogue decreases. A decrease in dialogue due to the rigid structure of a course increases the transactional distance (Stein, Wanstreet, Calvin, Overtoom, & Wheaton, 2005). On the other hand, a course that is too flexible in structure also promotes transactional distance. Instructors must

achieve balance with the structure and dialogue elements to provide an effective learning environment (Shannon, 2002).

*Learner Autonomy.* Learner autonomy, the third variable of the transactional distance theory, relies on the elements of dialogue and structure and directly relates to how much the learner invests in the learning experience. Learners receive motivation through the dialogue and structure of the course, or motivation comes from within the learner (Fallon, 2011). Benson and Samarawickrema (2009) believe that beginning online students possess lower levels of autonomy than those who have completed several online courses. The online beginners require more structure in their classes to narrow the transactional distance. On the other hand, learners with higher autonomy demonstrate competence with a greater transactional distance than learners who are not as autonomous (Moore & Kearsley, 2012). With the emergence of online communication tools such as Web 2.0 tools, learner autonomy becomes crucial to learners regarding how they work and learn while utilizing online communication tools. These communication tools offer collaboration opportunities that allow learners to share and create knowledge together (Benson & Brack, 2009).

In distance education and traditional classroom education, teachers and students engage in some means of communication to transfer knowledge, construct knowledge, and develop skills. According to Moore and Kearsley (2006), online education must employ some means of communication to bridge the transactional distance. Even though effective communication surfaces as a common thread in various educational theories, the transactional distance theory addresses dialogue in distance education as a primary element.

### *Theory of Teaching-Learning Communication*

Borje Holmberg (1989) states the description of his theory of didactic conversation that he developed more than four decades as follows:

If a distance-study course consistently represents a communication process felt to have the character of a conversation, then the students will be more motivated and more successful than if the course studied has an impersonal textbook character.

(p. 18)

Holmberg (1989) used the term *didactic* to include all of the teaching-learning practices. Many people misunderstood term *didactic*, so Holmberg (2003) now refers to his updated theory as teaching-learning conversation. This theory assumes that if a course offers consistent communication that supports the characteristics of conversation, students' motivation in the learning experiences occurs through empathy. Conversation characteristics represent real communication that engages students' emotions and motivates them to interact (Holmberg, 1989).

The basic concept of Holmberg's theory concerns learning, teaching, and the institution referred to as administrators. Holmberg (2003) summarizes his updated and broadened teaching-learning conversation theory through the following characteristics, which have evolved through the decades:

1. Distance education attracts students who cannot attend classes in a face-to-face situation due to various reasons such as work schedules, transportation problems, or child care issues.
2. Distance education seeks guidance by an institution providing the means for instructors or designers to develop course content and instructors who mediate



communication during the learning process. Distance education embraces various modes of learning, including behaviorist, cognitivist, and constructivist.

3. Key elements of student-instructor relationships remain visible in distance education. Also, empathy and a sense of belonging motivate students to learn with favorable attitudes. These feelings surface through conversation-like presentations by instructors who provide friendly interactions for students. Instructors commit to timely feedback and instructor immediacy.

Holmberg (1986) perceives that his theory provides a foundation for crucial teaching principles in distance education that supports students' motivation and provides students with a caring attitude through conversation-like communications. Simonson et al. (2012) believe Holmberg's theory contains a beneficial attitude toward learning and teaching principles that are conducive to learning.

#### *Theory of Equivalency*

Simonson, Scholsser, and Hanson (1999) believe distance education experiences exist on the foundation of equivalency. Equivalency refers to distance education learning experiences as standing equivalent to face-to-face learning experiences. Even though these learning experiences employ different interactions, these designs achieve the same learning outcomes with an equivalent experience (Simonson, et al., 2012). Simonson and Schlosser (1995) state the following regarding the equivalency theory:

It should not be necessary for any groups of learners to compensate for different, possibly lesser, instructional experiences. Thus, those developing distance educational systems should strive to make equivalent the learning experiences of

all students no matter how they are linked to the resources of instructions they require. (p. 13)

Simonson et al. (1999) outline the five components of the equivalency theory as follows: (a) equivalency; (b) learning experiences; (c) appropriate applications; (d) students; and (e) outcomes. Distance education students and face-to-face students experience instructional processes in different environments using different types of communication. Instructors and instructional designers must ensure equivalent learning experiences to include the same values and meanings for the students, whether the instruction takes place online or in a traditional classroom.

The learning experiences in the equivalency theory include interactions involving students that promote quality learning. These learning experiences take place in different locations and at different times. Students learn at different paces and with different learning styles, regardless of the learning environment. Instructors and instructional designers must create and implement learning experiences appropriate for students to achieve course objectives. Students in distance education require access to the same resources as students in face-to-face classes. For example if students require library resources in face-to-face classes, distance education students require access to equivalent resources; however, these groups require different methods of access to library resources (Simonson, et al., 1999).

In the equivalency theory, appropriate applications ensure meeting students' needs in an appropriate and timely manner. Learning experiences designed for distance education students and face-to-face students include suitable delivery techniques according to individual experiences and expectations. Students using outdated equipment

should not be expected to view videos. Learning strategies that include team work or collaboration should not be implemented for distance education students unless they possess access to technology-based collaboration tools (Simonson, et al., 1999).

Outcomes of learning experiences measure changes that happen cognitively in students due to their participation in the course learning activities. These learning activities aid students in attaining objectives and goals. According to Simonson et al. (1999), learning outcomes belong in two categories. Instructor-designed course goals and objectives represent one category, and the other category relates to student-designed outcomes. Student-designed outcomes consist of a personal nature regarding what the student expects to achieve as a result of participating in the learning experiences of a course.

The equivalency theory promotes ideal methods to facilitate effective learning experiences for all students regardless of location or learning styles. Instructors of distance education should not replicate delivery methods of face-to-face classes. The equivalency theory encourages instructors and designers to develop and implement distant courses utilizing various strategies and technologies that create equivalent learning experiences for students. According to Simonson (2000), “Equivalency is more difficult, but it promises to be more effective” (p. 34).

Theories of distance education must encompass all facets of education for distance education to rise to the top in the educational realm. These theories should not focus on the distance that separates students and instructors. Recent and emerging online communication tools in distance education enable effective, quality communication to take place in online classes as demonstrated globally in successful distance education

programs (Saba, 2003). Technological advances play a prominent role in prompting changes in developing distance education theories. Through the aid of the Internet and advancements of technological communication tools, relevant and inspiring distance education theories continue to evolve and emerge. Researchers resume their attempts to discover and refine an appropriate, unified theory that encompasses all aspects of education while taking the distance out of distance education.

#### Instructor's Role in Distance Education

As technologies change over the years, teaching methods must also change. Teaching methods evolved through many phases. In the pre-writing cultures, instructors of the early agrarian age used a one-to-one oral instructional method. Ferris and Wilder (2006) believe one of the oral model's strengths emphasizes communal ownership of knowledge. In the writing and print culture of the pre-industrial ages, oral instruction prevailed. With further development in printing, the literacy-based model of instructing stood strong by the end of the Industrial Revolution. This print model remains dominant in today's instructional processes. However, the Web and other technologies influence and challenge the print model. These technologies lead to a secondary-oral model of instruction. This secondary-oral model emphasizes a sense of community where learners take responsibility for their own learning through experiences that encourage them to interact with texts in electronic formats. While the print model remains dominant, instructors need to make the transition of moving written paper assignments to electronic or Web formats (Ferris & Wilder, 2006). Culligan (2003) states, "The challenge facing educators and trainers is to identify learning strategies that are appropriate for Digital

Natives, recognizing the different ways they process information and developing learning tools that maximize the potential of their unique cognitive approach” (para. 6).

Not every instructor embraces online courses, and many lack the qualities for instructing at a distance. Farnsworth and Bevis (2009) believe online instructors must possess the following skills and characteristics to develop and deliver quality online classes in order to create learning communities:

1. Communicate concisely and clearly with students.
2. Question students without seeming to challenge the students.
3. Transfer a warm, caring personality through written, audio, and video technologies for online classes, so students feel the presence of a human instructor.

The communication characteristics, as described by Farnsworth and Bevis (2009), embrace Holmberg’s (1986) theory of teaching-learning conversation. Along with the communication skills, the following essential, routine skills factor into the success of online classes (Farnsworth & Bevis, 2009):

1. Demonstrate a comfort level working with computers and basic software needed to function in an online environment.
2. Provide regular feedback regarding course work and other student correspondence in a timely manner.
3. Commit to the time necessary to create a meaningful learning experience.

Effective communication remains a crucial component in a successful online course, and facilitating the communications with students in an online class proves time consuming and demanding. Communication in an online course takes shape in different

formats through tools such as email, discussion areas, and chats. These tools allow online instructors to remain active in the communication processes to ensure their visibility and immediacy to the students (Young, 2006). The effectiveness of instructors' ability to communicate transforms the course content into meaningful, pertinent knowledge to the students (Moore & Kearsley, 2012).

### Communication Tools in Distance Education

#### *Web 2.0 Tools*

Many Web 2.0 tools contain characteristics of social software that maintain the ability to connect users and allow users to create Web content through collaborative efforts. Wikis, podcasts, and blogs represent social software that allows users to collaborate by exchanging information through the Internet. Interaction and collaboration encourage learners to construct their knowledge, which remains characteristic of a constructivist approach to learning. The Web resembles an enormous place where anyone participates and interacts with others using Web 2.0 tools (Parker & Chao, 2007).

Web 2.0 tools change the ways users collect and handle data and information, and these tools also allow users to create their own content. Web 2.0 tools offer learners a self-regulated mode of learning that no longer depends on formal settings, such as a classroom with a teacher lecturing. By collaborating and interacting with others through Web 2.0 tools, students form a community of learners with common goals. Effective Web 2.0 tools connect with constructivist ideals allowing learners control over learning experiences and construction of their own knowledge. However, efforts in utilizing Web

2.0 tools head toward failure if instructors resist changes in their instructional strategies (Parker & Chao, 2007).

Traditionally, student assessment displays a competitive nature where students compete for the highest grades. Collaborative Web 2.0 tools offer a deeper learning style by fostering a more collaborative, cooperative, and reflective learning environment where learners no longer compete for grades. Through the use of such tools, learners compare and contrast their work in order to create a sharable form of knowledge in their learning community. Educators must vacate the traditional assessment methods of individual student performance and concentrate on new assessment methods that fairly assess learning outcomes of learning communities. One of the challenges in this relatively new venue of education creates a contextual framework that includes meaningful criteria to measure learning outcomes in this new noncompetitive learning environment (Ruth & Houghton, 2009).

Michael Moore (2008) believes the effectiveness of incorporating social interactions depends on the development of tools for interaction in the course structure or design. Moore (2008) states, “Getting a good alignment of teaching strategy—which includes judicious design of learner-learner interaction—with good quality learning objectives would do more to produce more satisfactory results for students and teachers than any Web 2.0 technological innovation along” (p. 2).

*Wikis.* The word *wiki* stands for the Hawaiian phrase *wiki-wiki* which means quick (Parker & Chao, 2007). The user-friendly wiki sites encourage collaboration of users or learners regarding course content. Users easily edit or revise content in wikis. Wikis emerged from the Web 2.0 explosion with the capability of complementing and

enhancing learning experiences by adding a collaborative component for teachers and students (Parker & Chao, 2007).

Wikis allow instructors to develop learning opportunities that enhance learning processes and outcomes through assessable interactions (Ruth & Houghton, 2009). If instructors attempt to incorporate wikis into their curricula and demand control of the learning process, the wiki reduces to a mere course management system, which takes away any benefits and usefulness of the wiki. Instructors guide and facilitate the use of wikis by establishing topics and initiating interaction that motivate learner participation (Lamb, 2004). Instructors must release the traditional total control they hold in their instructor-oriented, lecture-based classes for the learners to experience the true and full benefits of collaborative activities that enhance learning experiences for students.

Regarding the use of wikis, Lamb (2004) states, “The medium works most effectively when students can assert meaningful autonomy over the process” (p. 45). Three factors must be present for collaborative learning activities to demonstrate success: (a) instructor’s effectiveness in encouraging group collaboration; (b) instructor’s success in creating a cohesive learning community; and (c) instructor’s efficiency in changing learner roles from passive to active with student-driven learning activities (WikEd, 2009).

*Podcasts.* A podcast exists as an audio file that users download and play through the Internet on a computer. Users also download podcasts to a ubiquitous, portable media player such as an iPod (Simonson, et al., 2009). Podcasting, the act of utilizing a podcast, allows teachers to bring lectures, course reviews, and other materials to life for their online students. The spoken word exhibits more power over the written word because the voice conveys feelings, attitudes, and personalities not found in text. Instructors instill a



human connection by offering voice recordings to online students (Mason & Rennie, 2010).

According to Donnelly and Berge (2006), learners identified four appealing attributes regarding podcasts. The following characteristics describe these attributes: (a) Instructor's voice adds a personal or human touch to the audio; (b) Learners have more control over how they learn because they have a choice of listening to the podcast, reading the text, or using both formats; (c) The portability allows students to multitask; and (d) An audio allows listening to the file anywhere and anytime that is convenient, such as while commuting. Podcasts add flexibility to the learner's schedule and an element of personalization from the instructor.

*Blogs.* In the educational arena, blogs exist as Web pages that simulate journals where authors or students reflect on activities or assignments. Visitors to blogs post comments creating interaction with the author and other visitors. Blogs also allow students to post podcasts, movies, pictures, and other forms of media. This enhanced feature allows students to archive and display their class projects in one area transforming the blog into a digital portfolio known as a blogfolio. Blogfolios allow students to witness their growth over time and reflect on their learning experiences. Blogs and blogfolios offer students a venue where they display creativity and use critical thinking skills (Duffy & Burns, 2006). They further state regarding students interacting with blogs, "In doing so, the students acquire creative, critical, communicative skills that may be useful to them in both scholarly and professional contexts" (p. 33).

With existing and emerging Web 2.0 tools, educators empower their teaching skills with tools such as wikis, podcasts, and blogs to provide active, provocative

communication and collaboration with their students and among their students and course content as prescribed by Moore and Kearsley's (2006) three types of interactions.

Instructors and instructional designers assume the responsibility of connecting appropriate tools to learning interactions and activities because not all tools demonstrate appropriateness for every situation (Beldarrain, 2006).

### *Course Management Systems*

Course management systems drive the software programs that serve as vehicles that deliver online classes. Other common names used for course management systems are learning management systems, virtual learning environments, and online platforms (Simonson, et al., 2009). Ullman and Rabinowitz (2004) describe course management systems as “[i]nternet-based software that manages student enrollment, tracks student performance, and creates and distributes course content” (para. 1). Course management systems aid instructors in designing, implementing, and administering online classes and also serve as a warehouse for course-related materials. Though course management systems differ in features, they maintain common features widely used by instructors. These common features include curriculum design tools, course delivery tools, administrative tools, communication tools, and assessment tools (Kim, 2004).

Course management systems integrated and merged their way into educational systems over the last 30 years. During the last 10 years, course management systems developed as a dominant and significant element in the educational arena as online enrollment explodes. As technological and traditional classroom formats meet head-to-head, instructors and other educational leaders rethink and reformat today's classes to meet the needs and demands of tech-savvy students. As stated by Morgan (2003), “The

history of higher education is one of balancing pedagogical tradition with new technologies and mandates for increasing access” (p. 80). Course management systems demonstrate the capability of providing deeper learning for students. According to Carmean and Haefner (2002), deeper learning describes an engaged and interactive learning experience that gives students a better understanding of course content.

Students today demand a social aspect in their learning environments. Course management systems offer them a means to connect with others around the clock. Students maintain the ability to stay in touch with each other at all times. A course management system offers an area for students to read announcements from their instructors and college and opportunities to participate in discussion areas 24 hours a day. Students possess the capacity to enter the discussion area and communicate with their instructor or other classmates while they remain online. If students and instructors enter the course management system at different times, they leave messages or post questions to be answered at a later time by others. Instructors have the opportunity to create interactive quizzes or reviews for their students’ access. The design of interactive materials offers students immediate feedback of their results, so they review the material right away instead of waiting for the instructor to grade the material (Carmean & Haefner, 2002).

Course management systems house audio and video files to integrate real-life examples and experiences. This feature allows students to incorporate new knowledge instantly to the course content to create a blended learning experience. Students also share ideas and designs with each other through a course management system. Not all students learn through the same means or learning preferences. A course management

system allows the instructor to create multimedia materials, which covers learning preferences of students more efficiently. Course management systems maintain tools and resources required to meet the needs of students described as auditory learners, visual learners, or tactile learners (Carmean & Haefner, 2002).

Course management systems support the ability to keep students engaged and connected. Students usually take online classes because they cannot fit their lifestyles into dedicated blocks of time that characterize traditional classes. Course management systems permit students to participate in discussions and collaborate with classmates at any time. One student may work better in the day while another student may work better late at night. These students collaborate at different times through a course management system without sitting in a classroom together.

Carmean and Haefner (2002) describe the amalgam of course management systems and learning principles as follows: “This potential, often strived for but much less often realized, continues to bring faculty and students to the course management system with an excitement and determination that rests on the hope of deeper, more meaningful, engaged learning” (p. 34). Carmean and Haefner (2002) believe course management systems strengthen student engagement and retain the ability to create stronger learning communities for students. However, more research ensures course management systems’ impact on student performance and satisfaction because many instructors do not make full use of the capabilities offered by course management systems (Lohman, 2007).

*Asynchronous Communication.* Time and distance separate participants in asynchronous communication, so they do not communicate at the same time as they

would in face-to-face communication. Asynchronous communication creates a time lapse between the message and the response (Somenarain, Akkaraju, & Gharbaran, 2010). The discussion area represents one of the most frequently used communication tools in an online class. Instructors utilize the discussion area of course management systems to post thought-provoking questions and ask students to respond to the questions and reply to other students' responses. Assigning sections of the discussions area creates a good environment for group work. Other examples of asynchronous communication tools include blogs and wikis (Simonson, et al., 2009).

*Synchronous Communication.* Even though predominantly asynchronous communication takes place in an online class, course management systems offer synchronous tools for online communication. Synchronous communication takes place between two or more people communicate in a real-time situation. Students engaging in instant messaging or participating in a live chat area represent examples of synchronous communication (Bender, 2003). Bender (2003) suggests that synchronous chat sessions with an online class maintain limits of approximately 30 minutes due to the efforts of trying to schedule online learners to attend at the same time. Synchronous communication tools also allow instructors to hold virtual office hours during arranged times for groups of students or individual students (Simonson, et al., 2009).

A commercial platform known as Wimba embeds itself in popular course management systems, such as Blackboard and Desire2Learn, and allows synchronous learning and collaboration to take place in distance education courses. Wimba creates an atmosphere similar to a conference room allowing an instructor to meet with an individual student, groups of students, or the whole class through audio and video media.

Instructors and students perform live presentations by uploading PowerPoint slides or other media to give presentations or demonstrations to the class. Through improvements of course management systems and other distance education technologies, students and instructors enjoy dynamic synchronous communication that allows more meaningful communication in online classes (Lowery, 2009). Communication technologies such as Wimba allow the line between distance education and face-to-face classes to fade and blur. These communication technologies make way for equivalent learning experiences in both distance education classes and face-to-face classes.

#### Students' Role in Distance Education

Today's traditional students characterize digital natives because of their exposure to technology from birth. On the other hand, digital immigrants represent those of older generations who learned about or migrated toward technology later in life. Digital natives grew up in a technological-savvy world watching MTV, playing video games, emailing, surfing the Internet, using the computer for homework, chatting online, and using cell phones. These natives crave technology and eagerly wait for the emergence of the next new technology. Digital natives think of technologies as their friends on which they rely to study, communicate, and relax (Culligan, 2003).

As a result of utilizing and embracing technologies, digital natives' cognitive thinking patterns do not resemble the same patterns as those from previous generations. Today, instructors and instructional designers must recognize these differences in thinking patterns and develop learning activities that align with students' cognitive learning patterns in order to enhance learning experiences. Incorporating learning and

communication tools in the learning process maximizes the potential of students' distinctive cognitive learning approach (Culligan, 2003).

Many online learning tools uphold constructivist ideals where students take control of constructing their own knowledge and do not wait for an instructor to transfer knowledge to them. Online communication tools allow students to create their preferred method of interacting by allowing multiple ways to collaborate and interact with others. This feature relates to the shy student who usually stays on the side when not offered his or her way of communicating (Ruth & Houghton, 2009). Online tools such as wikis or discussion threads keep copies of all revisions allowing students to watch their knowledge and thought processes transform and grow as they collaborate and interact with other students in their learning community. As the learning activities develop through online tools, learners obtain a sense of ownership or authorship of their activities. This sense of ownership creates pride and motivates students to do their best work (EDUCAUSE Learning Initiative, 2005).

For students to be successful in a student-centered, constructivist learning approach, they take on the following new roles: (a) active participant; (b) engaged participant; and (c) conflict manager (WikEd, 2009). Active participants contribute to the final product or knowledge produced in their community. Students realize that the community receives recognition for achievements, not individuals in the community. Students remain as connected participants in learning experiences while they work with other members to enhance the quality of their projects. When students assume the role of co-facilitator with other members, they challenge each other to foster deeper meanings. Students must depend on each other, not the instructor. As conflict managers, students

learn to deal with different viewpoints in a professional manner. Because conflict may surface in different forms, instructors may mediate through a conflict, but successful students deal with conflicts without the instructor (WikEd, 2009).

### Learning Communities in Distance Education

Communities form when a group of learners works together on activities or projects to achieve common goals or outcomes. Community participants collaborate and interact to share existing knowledge and create new knowledge. Online communication tools such as wikis, blogs, or discussion threads serve as knowledge platforms on which community members come together to collaborate, share, and create (Schaffert, Bischof, Burger, Gruber, Hilzenauser, & Schaffert, 2006). As learners work together constructing knowledge, they mature as the experts of the community. As new learners enter the community, these experts guide and assist the newcomers by sharing the community policies, knowledge, and goals. This social practice makes learning an integral part of the community. The course or project evolves as a community where the members engage in transferring and creating text that binds them together in their community of learning (Ruth & Houghton, 2009). Wegerif (1998) believes the social dimension of online classes influences the transactional distance. Students in Wegerif's (1998) study revealed their learning as a social process, and their degree of learning related to belonging to the community of practice.

According to Ruth and Houghton's (2009) study, the collaboration and collectivism allowed by communication tools offer the community of learners deeper understanding through sharing and communicating. Community learners in this study



felt the communication provided a meaningful and practical learning experience by sharing and creating knowledge (Ruth & Houghton, 2009).

### Retention of Students in Distance Education

Higher education continues to struggle with retention rates of online students. Attrition rates in online classes remain at least 20 percent higher than in face-to-face classes (Aragon & Johnson, 2008; Nistor & Neubauer, 2010; Patterson & McFadden, 2009). High online attrition rates cause administrators, technology leaders, and instructors many concerns. The search continues for the reasons related to higher attrition rates in online classes compared to face-to-face classes.

Even though communication revealed its importance in all aspects of educational environments, Capra (2011) perceives communication as the crucial factor in online learning student retention. Instructors who regularly communicate with their online students and remain available to their online students maintain a higher probability of retaining their students. Capra (2011) offers recommendations for instructors to employ in efforts to increase student satisfaction and retention rates in online classes. First, instructors should provide sufficient directions and instructions for students throughout the class using clear and concise communication. The second recommendation emphasizes communication on a daily basis providing detailed and helpful feedback where appropriate. Instructors must demonstrate diligence in answering students' questions as quickly as possible for effectiveness (Capra, 2011).

Retention worries in online courses generate concerns globally by technology leaders, instructors, and administrators. Students drop online courses for a plethora of reasons, but research indicates instructor communication and interaction with students

remains a crucial component in student satisfaction and student retention rates. When online students express satisfaction with the structure of the course, communication facilitated by the instructor, and opportunities to interact with other students, they retain the likelihood of completing the course rather than not completing the course (Lopez, 2007).

Aragon and Johnson (2008) conducted a study on factors related to high attrition rates in online courses of community college students. While 34% of the students in their study cited personal reasons for not completing an online course, 28% stated that course design and communication represented the influencing factors that led them to drop an online course. Technological issues and not understanding the course management system accounted for 18% of the reasons for dropping an online course, and 11% of the students noted that institutional processes were the reasons for dropping. The remaining 9% of the students stated that online learning did not suit their learning preference. While it is quite difficult for educational institutions to control personal reasons for dropping an online class, the reasons concerning course design and communication mechanisms need immediate attention by instructional designers, instructors, and administrators.

Aragon and Johnson (2008) issued two recommendations necessary for instructional designers to develop quality online learning environments. The first recommendation mandates designers to utilize new and innovative methods of delivering an online class. Online classes should not mirror face-to-face classes. This recommendation remains true to the theory of equivalency in distance education (Simonson, et al., 1999). While planning for course delivery, instructors should

incorporate student motivation, social interactions, hands-on activities, and reflective opportunities that deemed suitable for online learners. Aragon and Johnson's (2008) second recommendation prescribes instructors to establish regular communication habits in their online classes, so students know when and how communication occurs in their online course. Instructors should also hold virtual office hours for online classes that allow students a determined time for communicating with their instructors (Aragon & Johnson, 2008). With advancements in technology, instructors hold the tools necessary to create meaningful and effective communication with students as though they were face-to-face.

Of all the reasons for dropping online classes, communication with instructors persists as a significant factor in student retention and satisfaction. With the dynamic course management systems available, instructors no longer search for resources or tools to communicate effectively with online students. Many of the Web 2.0 tools and other communication tools incorporated into course management systems permit instructors instant access to students at all times. A concentrated effort in the improvement of online course delivery and communication techniques requires immediate attention and further studies to ensure quality online learning experiences for students that rival traditional face-to-face learning structures.

## CHAPTER III

### METHODOLOGY

Mississippi Virtual Community College (MSVCC) represents a consortium of 15 community colleges in Mississippi that formed an online learning institution to meet the needs of online learning for community college students in the State of Mississippi. MSVCC opened its virtual doors to offer online classes in the spring of 2000 with an enrollment of 1,382 students. At the end of MSVCC's first decade, its enrollment grew to 20,000 students, and approximately 1,000 instructors. Course offerings include a majority of classes found on campuses across all disciplines, including academic and technical classes (Mississippi Virtual Community College, n.d.).

Participants of this quantitative study are students of one of the MSVCC community colleges. This community college is a charter member of MSVCC and the focus of this study. The participating community college maintains the description as a forerunner in the arena of online learning in Mississippi. Community college students typically range in ages from 18 to 80 years old with various educational backgrounds and computer skills. MSVCC offers Blackboard and Desire2Learn as course management systems for instructors' use. Because the participating community college uses Desire2Learn on their campuses for hybrid and Web-enhanced classes, most of participating students use Desire2Learn as a course management system.

Online enrollment at the community college continues to flourish. The latest enrollment report from MSVCC listed this community college's online enrollment as 2,331 students in the spring semester of 2005. Enrollment at the community college for the spring semester of 2011 increased to 3,671, revealing a 57% increase.

## Participants

Survey participants attended a Mississippi community college and completed at least one online class in the fall 2011 semester. At the time of the survey distribution, 3,329 eligible online students at the participating community college received an invitation to complete the Online Learner Communication Survey (Appendix A). Online students met the age requirement of 18 years of age or older to participate in the survey. These community college online students received the survey instrument through email by the community college's Director of Institutional Research and Planning. The email contained a link to the study's survey. The email also contained pertinent information regarding participation in the survey (Appendix B). The 3,329 online students received the survey during the first week of December 2011, and the survey remained open for 12 days with two email reminders sent to those students who had not completed the survey during that time. Upon closure of the survey, the participating college's Director of Institutional Research and Planning extracted survey data and submitted the raw data to the researcher in an Excel spreadsheet.

## Instrument

The researcher obtained permission from the participating community college to survey its students currently enrolled in online classes through MSVCC (Appendix C). The researcher developed and designed the Online Learner Communication Survey using the research questions as the foundation for this quantitative study to determine the students' perception of effective online communication in their online classes. The survey contained 34 items related to the research questions and variables. Twenty-five survey questions contained answers based on a five-point Likert scale, and eight

questions contained listed choices from which participants selected responses. The last item provided for qualitative comments regarding online communication. No personal identifiers existed on the survey instrument; therefore, the participants remained anonymous. Students took no risks participating in this research project.

The variables of this study are as follows: (a) Effective communication in online classes; (b) Effective communication in traditional classes; (c) Satisfaction with communication in online classes; (d) Types of tools for online communication; (e) Retention in online learning; and (f) Effective communication tools in online learning. Table 2 illustrates which variables correspond to the survey questions and related research questions.

Table 2

*Relationship of Variables, Survey Questions, and Research Questions*

Variable	Survey Questions	Research Question
1. Effective communication in online classes	4, 6, 8, 10, 13	3, 4
2. Effective communication in traditional classes	5, 7, 9, 11, 12	3, 4
3. Satisfaction with communication in online classes	14, 15, 16, 17, 18	4
4. Types of tools used for online communication	1, 2, 3	1
5. Retention in online learning	20, 21, 22, 23, 24	5
6. Effective communication tools in online learning	25	2

### *Validity of the Instrument*

The researcher presented the survey instrument to a panel of three experts to determine the validity of the instrument. The panel of experts checked the survey for face validity and content validity. Face validity ensured an appropriate reading level for the intended participants, and face validity avoided sensitivity of subgroups. Content validity checked for omissions, redundancy, and poor wording in the questions contained in the survey. The panel of experts completed a Validity Questionnaire to guide them through their analysis of the questions on the survey (Appendix D). After the panel of experts examined the survey instrument, the researcher incorporated suggested revisions and additions to the survey as recommended by the panel of experts.

### *Reliability of the Instrument*

A pilot study deemed the survey reliable after the panel of experts determined the validity of the survey. Upon successful proposal defense, the researcher immediately applied for Institutional Review Board (IRB) approval from The University of Southern Mississippi (USM) for the research project (Appendix E). The conduction of the pilot test occurred after the researcher obtained approval and approval from the participating community college. The researcher selected 15 students from a face-to-face class at the participating community college for the pilot study. These students volunteered to participate in the pilot study. Pilot study participants completed at least one online class in 2011. Students participating in the pilot study did not participate in the actual study.

Upon completion of the pilot study of the survey instrument, the researcher analyzed collected results for reliability or internal consistency. SPSS and Excel software executed computations for the results of the study. A computation of

Cronbach's alpha validated reliability of the survey instrument. A Cronbach's alpha of 0.70 (70%) or higher determines reliability of survey questions. A higher Cronbach's alpha indicates strong reliability for the survey instrument.

Table 3 illustrates reliability results of survey questions from the pilot study as well as the actual study reliability results. The survey questions used for this study confirmed reliability through the pilot study and remained reliable for the study.

Table 3

*Computed Variables for Survey Reliability Results in Pilot Study and Study*

Variable	Related Survey Questions	Related Research Questions	Pilot	Study
			Cronbach's alpha	Cronbach's alpha
1. Effective communication in online classes	4, 6, 8, 10, 13	3, 4	.837	.818
2. Effective communication in traditional classes	5, 7, 11, 12	3, 4	.727 <sup>a</sup>	.830
3. Satisfaction with communication in online classes	14, 15, 16, 17, 18,	4	.972	.944
4. Types of tools used for online communication	1, 2, 3	1	.791	.682
5. Retention in online learning	20, 21, 22, 23, 24 <sup>b</sup>	5	.756	.748

*Note.* <sup>a</sup>The pilot study excluded survey question 9; however, the study included question 9. <sup>b</sup>Question 24 was reversed for the pilot study but not reversed for the study.



## Procedures

After the successful defense of the research proposal, the collection of data for this quantitative study occurred through an electronic survey entitled Online Learner Communication Survey. The researcher obtained permission from the participating community college to survey its students currently enrolled in online classes through MSVCC. Upon receiving USM's IRB approval, the Director of Institutional Research and Planning of the participating community college emailed the link to the survey to all currently enrolled online students during the end of the fall 2011 semester.

The researcher composed the email that contained the survey link. This email also contained information regarding the purpose of the survey and informed the students that completion of the survey was on a voluntary basis. Students decided whether or not to participate in the study. Students who did not respond to the survey request received two email reminders before the survey closed. The researcher offered a fifty-dollar iTunes gift card to encourage student participation. The Director of Institutional Research and Planning generated a random selection to determine the winner of the gift card. The Director of Institutional Research and Planning confirmed the names of students who completed the survey without the survey connected to students' identification. After the survey closed, the Director of Institutional Research and Planning extracted survey data and exported the raw data to an Excel spreadsheet. The Director of Institutional Research and planning submitted the spreadsheet document to the researcher for analysis of the survey data.

## Analysis

The researcher utilized Excel and SPSS software to obtain necessary descriptive statistics and analyze the collected data. Analysis of data using frequencies, means, correlations, and paired-samples t-tests measured students' perception of communication in their online learning environment. The designs of the following research questions address students' perception of the effectiveness of communication in an online learning environment:

1. What types of communication tools do online students use with instructors and other students in online learning?
2. Which online communication tools do online students perceive to be more effective in communicating with instructors and other students?
3. Do online students perceive online communication to be as effective as communication in traditional classrooms?
4. Does communication in online classes affect the satisfaction level of students?
5. Does effective communication help in retaining students in online classes?

Frequencies and means measured the types of communication tools students use to communicate with their instructors and other students in their online classes as referenced in Question 1. Frequencies and means measured which online communication tools students perceive as more effective in communicating with their online instructors and other students as referenced in Question 2. A paired-samples t-test and correlations measured if online students perceived the effectiveness of communication tools as effective as communication in their traditional classes as stated in Question 3. A bivariate correlation measured if communications in online classes affected the

satisfaction level of students as stated in Question 4. A bivariate correlation measured if effective communication helped in retaining students in online classes as stated in Question 5.

A secure and confidential environment through password protection accessible only by the researcher assured responsible and accurate data collection for this research project. Members of the researcher's dissertation committee serve as reviewers of the statistics obtained through the survey instrument.

## CHAPTER IV

### RESULTS

This study quantitatively analyzed the Online Learner Communication Survey results to determine the quality of instructional communication techniques and methods utilized by community college students in their online classes. Communication represents a key component of successful online classes, and today's technology provides instructors and students the means to communicate effectively in their online environments. This research project's survey results provide information from online community college students to determine how they perceive the quality and effective use of communication and communication technologies in their online classes.

The study sample consists of students enrolled in at least one online class at the participating Mississippi community college through MSVCC during the end of the fall 2011 semester. Online course offerings at this community college include both academic transfer classes and technical classes. At the time of the survey distribution, 3,329 online students at the participating community college remained eligible to participate in this research project. Of the 3,329 surveys released, 476 students returned surveys, yielding a 14% return rate. However, not all questions were answered on all surveys.

#### Descriptive Data

The age of the participants who participated in this research project ranged from 18 to 66 years of age ( $M = 30.56$ ,  $SD = 10.27$ ). Table 4 displays the self-reported characteristics of the participants' gender, education levels, number of online classes, and computer skills.

Table 4

*Survey Participants' Characteristics*

Characteristic	<i>n</i>	%
Gender		
Male	81	18
Female	366	82
Education level		
First year of college	93	21
Second year of college	197	44
More than 2 years of college	44	35
Number of online classes		
1 and first online class	95	21
2-3 online classes	139	31
4-5 online classes	92	21
More than 5 online classes	123	27
Computer skills		
Excellent	187	42
Good	177	40
Average	74	17
Below average	3	< 1
Poor	3	< 1

*Variables*

The six variables related to the research questions tested in this study are as follows:

1. Effective communication in online classes

2. Effective communication in traditional classes
3. Satisfaction with communication in online classes
4. Types of tools for online communication
5. Retention in online learning
6. Effective communication tools in online learning

Table 5 displays the descriptive statistics of the computed variables determined through frequencies and means. The table shows the variables listed from highest to lowest calculated mean.

Table 5

*Variable Means and Standard Deviations*

Variable Number	Research Variable	Related Survey Questions	<i>M</i>	<i>SD</i>
2	Effective communication in traditional classes	5, 7, 11, 12	3.79	.97
3	Satisfaction with communication in online classes	14, 15, 16, 17, 18	3.75	1.15
5	Retention in online learning	20, 21, 22, 23, 24	3.63	.99
1	Effective communication in online classes	4, 6, 8, 10, 13	3.09	1.01
4	Types of tools for online communication	1, 2,	2.98	1.33

*Note.* The Likert scale utilized for these questions was 1-5 (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree).

Table 6 displays the results of the individual survey questions related to variables 1-5. Table 6 lists the survey questions from highest to lowest means. This ranking

reflects sentiments of the students with their perceptions ranked from the most strongly to the least strongly. Students agree that communication represents a key to success in online learning and that immediate feedback ranks high on this list. However, students do not perceive online classes to offer better opportunities than traditional classes to ask questions of their instructors.

Table 6

*Students' Perception of Online Communication: Survey Questions 1-24*

No.	Survey Question	<i>M</i>	<i>SD</i>
3	My online classes regularly use written communication such as class notes, written assignments, discussion board posts or online chat sessions.	4.15	1.34
20	I feel that communication is the key to success in completing an online class.	4.07	1.25
19	When I am encouraged and motivated to stay engaged in online classes through communication with instructors and other students, I am more likely to complete the class.	3.94	1.22
23	Immediate feedback is a major factor that leads to my success and completion of an online class.	3.93	1.27
17	My online instructors present clear, concise instructions for assignments and projects.	3.91	1.24
5	I am encouraged to engage in student-to-student communications in my traditional classes.	3.88	1.29
7	I feel more connected to students in my traditional classes than to other students in my online classes.	3.82	1.26
4	I am encouraged to engage in student-to-student communications in my online classes.	3.81	1.34
18	As an online student, I am satisfied with the instructors' abilities to communicate ideas and concepts clearly in online classes.	3.81	1.26
9	I feel that communication experiences with my instructors and other students in traditional classes are as good as or better than in my online classes.	3.80	1.20

Table 6 (continued).

No.	Survey Question	<i>M</i>	<i>SD</i>
11	Traditional classes offer a better opportunity than online classes to ask questions of the instructors.	3.76	1.21
12	Traditional classes offer me a better opportunity to receive personalized feedback from the instructor regarding questions asked.	3.72	1.24
16	I am satisfied with the availability of my online instructors.	3.70	1.239
14	I am satisfied with how active my instructors are in my online classes.	3.69	1.30
15	As an online student, I am satisfied with immediate feedback from my instructors.	3.65	1.31
22	I am more likely to complete an online class when I do not feel isolated.	3.40	1.28
1	In my online classes, I have experienced instructional video presentations such as lectures or detailed instructions related to course materials.	3.36	1.53
24	Given the opportunity of attending an online class versus a traditional class, I would choose the online class.	3.34	1.37
13	Online classes offer me a better opportunity to receive personalized feedback from the instructor regarding questions asked.	3.15	1.27
8	I feel that communication experiences with my instructors and other students in online classes are as good as or better than in my traditional classes.	3.14	1.30
21	I am more likely to drop or withdraw from an online class due to lack of communication from my instructor.	3.13	1.46
10	Online classes offer a better opportunity than traditional classes to ask questions of the instructors.	2.86	1.26
2	Audio communication tools such as Wimba, podcasts, and narrated presentations are sometimes utilized in my online classes.	2.58	1.49
6	I feel more connected to other students in my online classes than to other students in my traditional classes.	2.53	1.34

*Note.* The Likert scale utilized for these questions was 1-5 (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree).



For Question 25 on the survey, students rate the effectiveness of commonly used online communication tools. Question 25 relates to variable 6, effective communication tools in online learning. The online communication tools list included discussion areas, chat, pager, phone, email, Wimba, videos, and podcasts. Students rated each listed tool on a five-point Likert scale. Table 7 displays the calculated means and standard deviations of the online communication tools according to the students' ratings of the effectiveness of each tool. Students ranked email and discussions, as the most effective online communication tools with podcasts and Wimba ranked the least effective communication tools when used for communication in online classes.

Table 7

*Effectiveness of Online Communication Tools*

Online Communication Tool	<i>M</i>	<i>SD</i>
Email	4.33	.95
Discussion Areas	4.09	1.03
Videos from Instructors	3.45	1.26
Chat	3.40	1.23
Phone	3.39	1.24
Pager	3.28	1.30
Podcast or Other Audio	3.23	1.29
Wimba	2.76	1.10

*Note.* The Likert scale utilized for these questions was 1-5 (1 = Not Very Effective, 2 = Effective, 3 = Neutral, 4 = Effective, 5 = Very Effective).

### Statistical Data

The purpose of this study analyzes the quality of instructional communication techniques and methods utilized by community college students in their online classes. The designs of the following research questions address students' perception of the effectiveness of communication in an online learning environment.

*Research Question 1: What types of communication tools do online students use with instructors and other students in online learning?*

Research Question 1 used frequencies and means to determine the types of online communication tools students use to communicate in their online classes. The Online Learner Communication Survey provided five questions (1, 2, 3, 31, and 32) corresponding to Research Question 1. Table 8 shows the results of three of these questions measured through frequencies and means and lists the survey questions from highest to lowest means.

Table 8

*Results for Survey Questions 1, 2, and 3*

No.	Survey Question	<i>M</i>	<i>SD</i>
3	My online classes regularly use written communication such as class notes, written assignments, discussion board posts or online chat sessions.	4.15	1.34
1	In my online classes, I have experienced instructional video presentations such as lectures or detailed instructions related to course materials.	3.36	1.53
2	Audio communication tools such as Wimba, podcasts, and narrated presentations are sometimes utilized in my online classes.	2.58	1.49

*Note.* The Likert scale utilized for these questions was 1-5 (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree).

The survey results for survey question number 3 support that traditional methods of written communication such as class notes, written assignments, discussion board posts, and online chat sessions take place more frequently in online classes.

Question 31 on the survey requested students to select tools from a list of commonly used online communication tools that they use in online classes to communicate with their instructors and other students. Students selected any tools they used in an online class. Table 9 illustrates students' responses. According to the student responses, students use email and discussion areas significantly more than other online communication tools.

Table 9

*Online Communication Tools Utilized by Students*

Online Communication Tool	<i>n</i>	%
Email	423	30
Discussion Areas	410	29
Pager	201	14
Phone	140	10
Videos from Instructors	94	7
Live Chat	78	6
Podcasts or Other Audio	38	3
Wimba	13	1

Students revealed more recent and innovative means of online communication such as instructional videos and lectures and recorded audio presentations take place less frequently than traditional means of online instructional communication.

Question 32 asked students to select the most frequently used online communication tool from a list of commonly used tools. Students selected only one tool from the following list of tools: (a) discussion areas; (b) live chat; (c) pager; (d) phone; (e) email; (f) Wimba; (g) videos from instructors; or (h) podcasts or other audio. Table 10 displays the results of the frequently used communication tools in online learning.

Table 10

*Online Communication Tools Frequently Used by Students*

Online Communication Tool	<i>n</i>	%
Email	324	73.0
Discussion	66	15.0
Pager	27	6.0
Phone	11	2.0
Videos from instructors	4	0.9
Wimba	1	0.2
Live Chat	0	0
Podcasts or other audio	0	0

The results strongly indicate that the majority of these students utilize only traditional forms of online communication. These results signify that students do not utilize a wider range of online communication tools.

*Research Question 2: Which online communication tools do online students perceive to be more effective in communicating with instructors and other students?*

Research Question 2 used frequencies and means to determine which online communication tools students perceive to be more effective in communicating with their online instructors and other online learners. From a list of eight commonly used online communication tools presented in survey question 25, students ranked these communication tools from very effective to not very effective as conveyed in Table 7 in the Descriptive Data section of this chapter.

Students perceived email, discussions, and videos as the most effective in communication with instructors and other online learners. Students perceive podcasts and Wimba sessions as the least effective online communication tools from the list selection of tools.

*Research Question 3: Do online students perceive online communication to be as effective as communication in traditional classrooms?*

Research Question 3 used a paired-samples t-test and correlations to determine if online students perceive the effectiveness of communication tools to be as effective as communication in their traditional classes. Variable 1, effective communication in online classes, paired with variable 2, effective communication in traditional classes. A paired-samples t-test indicated significantly higher scores for effective communication in traditional classes ( $M = 3.8, SD = .97$ ) than for effective communication in online classes ( $M = 3.1, SD = .99$ ),  $t(458) = 10.3, p < .001$ . According to measured results, students do not perceive the effectiveness of online communication to be as effective as communication in their traditional, face-to-face classes.

*Research Question 4: Does communication in online classes affect the satisfaction level of students?*

Research Question 4 used a bivariate correlation to determine if communications in online classes affect the satisfaction level of students. A Pearson correlation calculated with variable 1, effective communication in online classes, and variable 3, satisfaction with communication in online classes, yielded test results for Research Question 4. Test results expose a strong correlation between communication and satisfaction levels pertaining to online classes,  $r(469) = .63, p < .001$ . Students recognize a higher level of satisfaction with their online classes when effective communication prevails. Students recognize lower levels of satisfaction as communication decreases.

*Research Question 5: Does effective communication help in retaining students in online classes?*

Research Question 5 used a bivariate correlation to determine if effective communication aids in retaining students in an online class. A Pearson correlation calculated with variable 1, effective communication in online classes, and variable 5, retention in online learning, yielded test results for Research Question 5. Results reveal a significant correlation between effective communication and student retention in online learning,  $r(469) = .29, p < .001$ . Students perceive effective communication to be a prominent element of motivation in completing an online class.

Students identified several barriers they face while taking online classes through survey question 33. This question asked students to select from a list of barriers. The barriers listed for selection follow: (a) fast Internet service; (b) outdated computers; (c) outdated software; (d) financial constraints; and (e) other. The “other” selection

permitted students the option of keying in additional barriers. Table 11 displays the results of the listed barriers as number of selections. Students selected any of the listed barriers that applied to them. Student responses indicate fast Internet service and financial constraints as the most widespread barriers of taking online classes.

Table 11

*Barriers to Online Learning*

Barrier	No. of Selections	%
Fast Internet service	99	36
Financial constraints	83	31
Outdated software	53	19
Outdated computer	37	14
Other barriers	41	15
Nonrelated comments	14	34
Communication	6	15
Internet	6	15
Software	5	12
Time constraints	4	10
Self-Discipline	3	7
Computer skills	2	5
Mac computer compatibility	1	2

As Table 11 reflects, students reported six communication-related barriers under the “Other” selection. The six specific communication-related barriers reported by students follow:

1. Lack of contact with instructor.

2. Lack of community interaction.
3. Lack of some instructors' availability.
4. Delayed responses from instructor.
5. An inhuman feel to the experience.
6. No one-on-one connections.

The student responses identify lack of communication in online classes as a barrier. Barriers represent obstacles that make success difficult, and they lead to withdrawals from online classes. Therefore, these results further support effective communication as an aid in student retention in online classes.

#### Qualitative Comments

At the end of the Online Learner Communication Survey, 123 students submitted additional comments regarding communication experiences in their online classes. Students' comments resulted with a close mix between positive and negative connotations regarding communication in the online environment. Table 12 displays a list of a sampling of the positive comments by students related to positive communication experiences in online classes.

Table 12

#### *Sampling of Students' Positive Comments Concerning Communication Experiences*

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##### Exact Student Comments

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1. Instructor interaction and feedback is the key to success in online classes
  2. It was an excellent experience to have the teacher and other students engaging to majority of my questions or concerns. And very easy to get in touch with my instructors
  3. The instructors for the two online classes I took were very successful at keeping the lines of communication open. I never felt lost or abandoned. Whenever any questions arose they were at my disposal during reasonable times of need.
-



Table 12 (continued).

Exact Student Comments
4. I really enjoy the convenience of online classes. I prefer them over traditional classes. There is a lot of distractions and competition in traditional classes that online classes eliminate.
5. I have never experienced poor communication in any of my online courses. If anything, the communication I have experienced in my online courses has been better than that of my traditional courses due to the ease of entering a more one on one environment with my instructor. However, traditional classes are still a necessity for some courses, such as courses in advanced mathematics.
6. I believe and have experienced a wonderful experience with online education when I had an instructor who was both capable and willing to utilize tools to communicate and also be available to communicate online. I hope that someday either video lectures or podcasts will become the norm for instructional material presentation, and that all instructors will utilize tools to communicate openly with all students. There really is no reason, with today's technology, that online and classroom instruction cannot be combined!
7. very effective prompt feedback; pager; emails; clear cut assignments and instructins - Mrs. XXX is a very skilled capable experienced professional instructor.
8. I had an instrictor who emailed the class often reminding us of deadlines. I found this very helpful because I got the email on my phone and I was able to add the info to my calendar right then and there.
9. The most important part of successfully (and enjoyably) completing an online course is availability of the instructor. Some must have too much on thier plate at the time and have limited availability. While others are there whenever you need them.
10. The communication experiences I have had with instructors and other students have been excellent. I think discussion boards and email are sufficient tools for communication. Videos and PowerPoint presentations that can be run at your convienence are helpful. The key to the success of an online class is making the class convenient. I work full-time and participate in my classes mainly early in the morning between 4:00 and 6:00 AM. We need interaction that can take place at any time of the day. It would be impossible for me to participate "live" most times of the day.

Table 13 displays a list of a sampling of the comments by students related to negative communication experiences in online classes. Students reveal experiences of delayed communication and in some cases no responses to questions or problems.

Table 13

*Sampling of Students' Negative Comments Concerning Communication Experiences*


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Exact Student Comments
1. Taking an online class is not as rewarding as I thought it would be as I am a person who likes to ask lots of questions. It is disappointing when I am unable to ask them and get a response right away.
2. It takes too long to hear back from an instructor when you have a question. The biggest problem is that my instructors have too much work to do and not enough time to complete it.
3. Online classes, while not as effective for me as traditional courses, allow the flexibility to work and pose questions to the instructor at any hour. If the student does not require immediate feedback and is a visual learner this can be an effective alternative to traditional courses for those, like myself, who do not have time available to sit in regular courses.
4. I only had a couple questions during the entire online class semester. I was given my answers through email in good time. The only communication between other students and I was when responding to each others ideas on discussion board posts; There was no personal interaction (involving myself anyway). This being my first online class, these are my initial perceptions. If I take more and more in the future, they might change as far as communication between students-there might be a lot more time devoted to studying and seeking each others help.
5. D2L is more user friendly, typically appears to have a more organized layout and exceeds Blackboard in its overall functionality. I would suggest the D2L program be used by all instructors vice blackboard. Additionally, I've noticed some instructors are extremely disengaged from their students when teaching online vice in the traditional classroom. This lack of involvement has convinced me to pursue the traditional classroom over online learning.
6. I did not have any communication with my instructor. I needed to talk with her several times throughout the course and I had the hardest time getting her to answer me. I had to ask her any questions I had during my other classes and even then she did not answer my questions most of the time.
7. online teachers need to grade assignments in a timely manner. If an assignment one week continues the next week, especially in computer classes, you need these assignments corrected before the next one can be done. Several teachers like to leave it to the last minute to post grades on assignments. I have had instructors online who will grade an assignment, but you will never know what you did wrong, so I do not see me learning from my mistakes.
8. Most instructors do not reply back to emails, and I understand that they have many students. However, when the lesson is started and completed in one week, and the teacher decides to respond to the email the following next week it is already too late!

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Table 13 (continued).

Exact Student Comments
9. Everyone who teaches an online course should know exactly how to run it in the most organized, efficient way possible. They should also take it equally as seriously as their campus classes and not put online students on the back burner. Some of my experiences with clueless, disorganized online instructors have been unacceptable. I appreciate all the instructors who are organized and take time to strive to excel in their online course instruction.
10. Most of the time it feels as if the online class for the teacher is a side class, they don't give too much attention to it. Some teachers do not respond to e-mails or even discussion posts for weeks I had some hybrid classes and I think they are the best with the time convenience and the ability to meet the teacher at least once a week

Table 14 displays students' comments targeting specific online communication tools. Students voiced concerns related to the lack of using innovative communication tools such as Wimba or podcasts. According to these results, students desire more exposure to innovative communication tools.

Table 14

*Students' Comments Concerning Online Communication Tools*

Exact Student Comments
1. I never had any class that used chat, Wimba, Videos or podcast but think it would be helpful if they were used more.
2. I just wish that the online teachers would post more videos of lectures relating to the course.
3. Being a visual learner, I would very much like my instructors to include a video component in their lectures, although I haven't had one offer a video yet. Also, a podcast would be fantastic. Please incorporate these elements if at all possible.
4. I think in online classes using Powerpoint presentation "lectures," it would help us audio-visual learners to have accompanying audio.
5. I've taken 9 online classes in the last 2 years; I have only been asked to use Wimba once, have only come to the school for proctored tests and none of my teachers have ever offered instructional videos/podcasts. For the most part, I have been teaching myself. I will continue to take online classes due to personal/work scheduling reasons.

Table 14 (continued).

Exact Student Comments
6. If using videos, podcast or other type of audio/video, it would be helpful to implement closed caption for those that can't hear very well.
7. I think using a forum type discussion board would have helped me in tossing ideas and discussing the information with other students to grasp the information a little better. I think the capability is there, but its not being utilized.

Students display mixed opinions regarding effective communication in online classes; however, they do indicate the importance of communication. Most students' grievances relate to the lack of timely and constructive feedback from their online instructors. The students' comments also reveal that student satisfaction of online classes relates to the effectiveness of the instructor and the instructor's ability to design and successfully facilitate an online class that produces a conducive, quality learning experience.

#### Summary

This chapter presents the analysis of the data collected from the Online Learner Communication Survey from the students enrolled in at least one online class at a Mississippi community college. The organization of survey results presented data pertaining to each of the research questions. Results support that these online community college students utilize traditional methods of written communication such as class notes and discussions; however, students report their exposure to more innovative means of communication such as the use of video and audio presentations as limited. Students report communication as a key to success in online classes. Communication, including immediate feedback, motivates students to complete an online class. Students report that they perceive a higher level of satisfaction with online classes when effective

communication occurs. Chapter V of this research project offers a summary of the findings with discussions of the results of the measured data related to the research questions.

## CHAPTER V

### DISCUSSION

#### Summary

Distance education exists as a vital part of educational systems. Successfully communicating with students in online classes ensures students receive the same quality of education in their online classes as in face-to-face classes. If instructors cannot effectively communicate knowledge to their students, then the transfer of learning does not occur. Communicating with online students means the use of technological communication tools. Computer-mediated communication for online classes takes place over the Internet and transpires differently from communication in face-to-face classes. Instructors must be prepared and knowledgeable regarding the use of online communication tools to create rich, dynamic virtual learning environments.

The theoretical basis of this study employs Michael Moore's transactional distance theory. Moore's (1984) transactional distance theory describes an educational and psychological distance between instructors and students that develops through communication gaps. This psychological distance represents a transactional distance. The transactional distance appears greater when instructors and students do not communicate or interact regularly. Effective communication serves to reduce transactional distance in online classes by allowing students a sense of belonging and the comfort that a human instructor guides them through the course.

This study quantitatively analyzes the implementation and application of instructional communication tools and techniques utilized by community college students in their online classes. Students of the participating community college received an

invitation to participate in an electronic Online Learner Communication Survey. The survey provided data from the community college students to determine how they perceived the quality and effective use of communication tools and communication technologies in their online classes. Results of this study support the literature pertaining to the importance of effective communication in online learning achieved through various communication tools designed for distance education. Students in this study revealed that they utilize primarily written-types of communication tools such as email and discussions in their online classes, and they do not perceive the communication in online classes to be as effective as communication in face-to-face classes. Students of this study who believe effective communication exists in their online classes express more satisfaction toward their online classes. As enrollment in distance education continues to escalate, students' discernments represent a significant factor in guiding educational institutions toward producing quality and meaningful educational experiences in distance education programs.

### Conclusions and Discussion

The researcher designed the research questions of this study to guide the research and measure community college students' perceptions of effective communication taking place in their online classes. The designs of the following research questions addressed students' perception of the effectiveness of communication in their online learning environments. According to the measured results, the researcher offers the following conclusions and discussions for each research question presented in this study.

*Research Question 1: What types of communication tools do online students use with instructors and other students in online learning?*

Through the Online Learner Communication Survey, students indicated they utilized traditional types of instructional communication tools more often in their online classes than other types of communication tools. These commonly used or traditional online communication tools include written forms of communication such as class notes, written assignments, posts to a discussion board, and chat sessions. Students indicated they experienced video types of communication such as lectures or instructions related to course materials less often than they experienced written forms of communication. Students perceived types of audio communication tools such as Wimba, podcasts, and narrated presentations as the least utilized instructional communication tools in their online classes. Survey results also revealed that email and discussions were the most frequently used communication tools with email surpassing discussions. Videos from instructors, Wimba, chat, and podcasts or other audio presentations were utilized very seldom or not at all.

Survey results regarding the types of communication tools employed in their online classes reveal a lack of innovative means of communication such as teacher-made videos or audio presentations compared to the use of traditional written-type of instructional communications. Students reported instructors do not utilize a variety of more engaging types of instructional communication tools available for their use through course management systems.

Desire2Learn and Blackboard represent the two course management systems utilized by the community college students surveyed in this study. Desire2Learn and



Blackboard contain the communication tools referenced in the survey questions. Instructors possess the access to these communication tools for use in their online classes. According to Lohman (2007), many instructors do not make use of all of the communication tools offered in course management systems as also evidenced in this current study. In Rose's (2009) study, 100 percent of the online students surveyed felt instructional communication tools such as instructor-made videos enhanced their educational experiences and led to instructor immediacy. Moore and Kearsley (2012) also confirmed that audio and video media remain underused in online classes. In some instances when instructors employ audio or video media as a means of communication, their result reveals an uninspiring lecture that serves little purpose. Online instructors across all disciplines need to recognize the importance of effective communication, and they need to realize the importance of utilizing a variety of communication tools to accommodate all learning styles. Using exclusively text-type communication tools limits the interactions in the online classes and excludes some learning styles.

*Research Question 2: Which online communication tools do online students perceive to be more effective in communicating with instructors and other students?*

The Online Learner Communication Survey gleaned data regarding students' perception of effective online communication tools. Students perceived email, discussions, and videos from instructors as the most effective communication tools, with chat, phone, and pager following. Students perceived podcasts or other audio and Wimba as the least effective online communication tools. At this point, the researcher reiterates the results of the first research question. Students identified these least effective tools also as the least utilized communication tools. The researcher recognizes that students

revealed audio and Wimba communication tools as the least effective because they received little or no exposure to these tools. If they lacked experience with these types of progressive communication tools, students could not fairly determine the effectiveness of such tools.

According to Mason and Rennie (2010), effective audio tools such as podcasts allow instructors to put life into their class lectures, course reviews, feedback, and other course materials. The spoken word brings more meaning to content by conveying feelings and attitudes. Podcasts also alleviate students' feeling of isolation by increasing connectivity through personalization (Lee & Chan, 2007). Instructors offer a mere electronic form of a correspondence course by using only text-based communication tools such as email and discussions in online classes. According to Moore and Kearsley (2012), a sole communication technology does not exist that qualifies to meet the needs of the various learning styles, which accompany learners in distance education. Using a combination of various communication tools by integrating text, audio, and video accommodates the various learning styles of students. Administrators and technology leaders maintain a responsibility to create and adhere to a functioning technology plan that enhances instructors' abilities to utilize a variety of communication tools designed for enriching educational experiences for students in distant education programs. The technology avails itself now for students and instructors to communicate effectively.

*Research Question 3: Do online students perceive online communication to be as effective as communication in traditional classrooms?*

When the effective communication in online classes' variable paired with the effective communication in traditional classes' variable, the results revealed that the

participating online community college students did not perceive the effectiveness of their online communication to be as effective as communication in their traditional classes. Today's students in online classes should perceive no difference in communication compared to their face-to-face classes. The technologies contained in the course management systems contain the necessary and relevant communication tools to obtain the same quality of communication in online classes as experienced in face-to-face classes. When online classes are well-designed and properly facilitated by instructors utilizing online communication tools, students should perceive the same satisfaction levels regarding communication in both face-to-face and online learning environments as supported by the theory of equivalency in distance education (Simonson, et al., 2012).

The results of this study support other studies that reveal students prefer face-to-face learning more often than online learning. However, in numerous cases, as in this study, many students reveal satisfaction with their online learning experiences. When students experience a well-designed online class, they reveal positive attitudes and satisfaction with their distance education and even favor distance education over face-to-face classes (Moore & Kearsley, 2012).

Administrators and technology leaders need to ensure positive training and support experiences that motivate instructors in using online communication tools effectively. In all educational arenas, effective communication must take place regularly, whether in the classroom or through an online environment. In the online environment, this communication must take place through technology over the Internet regardless of the media utilized (Moore & Kearsley, 2012). Instructors cannot do their part to decrease the transactional distance in their online classes, if they cannot effectively employ the

online communication tools necessary to create meaningful interaction in their online classes.

*Research Question 4: Does communication in online classes affect the satisfaction level of students?*

Through correlation of the variables of effective communication in online classes and satisfaction with online classes, the students displayed that a strong correlation exists between communication and satisfaction levels pertaining to online classes. Students exhibited a higher satisfaction level regarding their online classes when effective communication was prevailed. Young (2006) identifies effective communication as a key element of a successful and prosperous online class. Students in this study also indicated satisfaction when effective communication maintains a strong presence in their online classes. Sheridan and Kelly (2010) related that students surveyed considered communication as the contributing factor in a successful and satisfying online learning experience.

When students place a high value on communication in online classes, instructors need to ensure effective communication as their top priority when teaching in the online environment. Quality and timely feedback are mandatory, so students receive the assurance they need to advance with confidence in the course material. Facilitating and delivering effective communication requires more time in online classes than in face-to-face classes. Online instructors need to plan for this extra time needed to communicate with their online students. Administrators need to support online instructors by limiting online class sizes to a manageable size. Instructors also need adequate time in their schedules to successfully manage online classes.

*Research Question 5: Does effective communication help in retaining students in online classes?*

A correlation of effective communication in online classes and retention in online learning showed students perceived effective communication as a factor of motivation in completing an online class. Students also reported significant communication-related barriers to online classes such as lack of instructor contact, lack of community interaction, delayed responses from instructors, and an inhuman feel to the online experience. These results indicate that students identify effective communication as an aid in online class retention. The findings of this study support previous studies regarding retention rates in distance education. Dahl (2004) found that delayed feedback and the volume of interaction were significant factors tied to student retention. Capra (2011) identifies communication as the crucial factor in distance education student retention, and Kearsley (2002) identifies sound course designs and timely feedback to students as important components in student retention. However, instructors not equipped or trained to implement sound online courses contribute to lower retention rates in online classes. While instructors relinquish control regarding the personal reasons that cause students to withdraw from online classes, they possess the resources needed to maintain and facilitate quality communication with their students.

#### Limitations

The researcher also recognizes the following limitations of this proposed study:

1. The response rate depended upon the number of students who completed and submitted the survey. Students completed the Online Learner Communication Survey on a voluntary basis.

2. A potential bias exists because the researcher remains an employee of the participating community college and does teach online classes.
3. The release of the Online Learner Communication Survey coincided with the release of online instructor evaluations. Many online students received multiple surveys during the same period.
4. Participants in this study attended the same community college; therefore, the sample shared characteristics. The results from this homogeneous sample may differ from a more diverse group.
5. Participants in this study lack exposure to innovative online communication tools; therefore, the rating of the effectiveness of these tools may not reflect accurate results. If students utilized all of the communication tools in this study, the ratings of the tools may yield different results.
6. The 14% survey response rate represents a limitation to this study. Out of 3,329 surveys distributed, 476 students returned surveys. This number represents a small segment of the online student population at this community college.

#### Recommendations for Policy or Practice

According to the results of this study, the participating community college students do not perceive their online communication to be as effective as their communication in face-to-face classes. Results also reveal that these students received limited exposure to innovative means of communication such as audio and video presentations by their instructors, and the students utilize written communication tools such as email and discussions more frequently. While discussions and email remain

vital, the use of communication tools that encompass all learning styles enhance the virtual teaching and learning environment by reducing transactional distance and supporting the theory of equivalency. With the sophistication and advancements of course management systems, innovative communication tools emerge for instructors' use. These innovative communication tools greatly enhance virtual classrooms.

### *Professional Development*

A recommendation focuses on the college's technology plan to ensure that it includes and provides for ample professional development opportunities for instructors regarding training on the use of online communication tools as well as teaching strategies to utilize online communication tools. Administrators, technology leaders, and instructional designers also need to ensure the support of online technologies along with instruction. The results of this study strongly indicate the need for further instructor training and support in the area of communication technologies for online classes to ensure the quality of online education. Instructors also need access to proper equipment, such as Web cams and quality microphones. Personalized video and audio presentations do not require expensive equipment for production.

### *Mentoring Programs*

Another recommendation pertains to adopting a mentoring program for online instructors. One suggestion pairs exemplary online instructors with beginning or struggling online instructors for additional training and support. Today's undergraduate education programs expose and train their students on how to integrate technological communication tools to enhance face-to-face and online classes. However, at the college level, many instructors were not education majors. Also, many older instructors lacked

exposure to technology during their own educational journeys. Therefore, many instructors feel uncomfortable with technology utilized in distance education, and they experience difficulty in grasping some of the concepts of technology used in short professional development sessions that usually offer little or no follow-up sessions. By employing a mentoring program, schools ensure technology-deficient instructors access faster support and guidance when needed.

### *Virtual Office Hours*

Instructors need encouragement and incentives to maintain virtual office hours for their online students. Scheduled office hours allow students in an online class to know times when their instructor is likely to return an immediate response to questions or help with assignments. Numerous options for virtual office hours exist through course management systems. Virtual office hours conducted through Wimba, chat sessions, email, or through the pager system provide alternatives for instructors. Instructors may need to set and post virtual office hours during at least two different days and times for availability to all students. Details of virtual office hours would need to be addressed in the technology plan. Administrators should consider the virtual office hours as part of the instructors' regular working hours each week, whether conducted from home or on campus. For example, if instructors schedule two virtual office hours during evening hours or on weekends each week, these hours would count as regular working hours for that week. Most students take online classes due to the convenience of maintaining their work schedules. Students who work during the days do not have access to instructors during regular on-campus day schedules.



### Recommendations for Future Research

This study focused on students' perception of effective communication in their online learning environments. While this study emphasized the prominent role of online communication tools in integrating effective communication in distance education, the study also opens the door to further research opportunities.

#### *Replicating the Study from Faculty Perceptions*

In a pure online environment, instructors and students require proficiency in using online communication tools in order to communicate with each other and other students. For instructors, the tasks of learning how to setup and utilize various online communication tools appear daunting, frustrating, and time consuming. One recommendation for future studies is to survey instructors across disciplines to measure which communication tools they employ in their online classes, how they integrate these communication tools in the virtual learning environments to communicate with students, and which tools they perceive as effective or ineffective.

#### *Replicating the Study with Upper-Level Undergraduate Students*

A second recommendation for future studies is to broaden the scope of this same study by using a different sample. While a large community college's online students participated in this study, surveying the perceptions of upper-level online undergraduate students at a university may yield different results. Characteristics of an upper-level undergraduate sample include students who have more experience in taking online classes. Students with more online experiences at a different educational level may produce different perspectives than students from the sample in this study.

*Replicating the Study with a Focus on the Student Retention Variable*

Student retention remains a major concern for both administrators and instructors. Students cite many reasons regarding why they register for an online class but do not complete the class. Administrators, instructors, and institutions reap benefits when they observe higher retention rates from their online students. Higher retention rates produce financial benefits as well as a better institutional reputation pertaining to online classes, which attracts more students. With distance education programs gaining momentum, a clear focus related to what aids students in successfully completing an online class requires further research. Online classes typically harbor a higher student withdrawal rate than face-to-face classes. Withdrawal rates from online classes remain at least 20 percent higher than in face-to-face classes (Aragon & Johnson, 2008; Nistor & Neubauer, 2010; Patterson & McFadden, 2009). A focus on why students withdraw more often from online classes than traditional classes remains necessary to obtain results needed to combat the high attrition rate in distance education programs.

*Replicating the Study with Students Experienced with Communication Tools*

Another study requires the researcher to identify instructors who routinely utilize a variety of innovative online communication tools in online classes. If instructors use more innovative communication tools, students receive more exposure to these tools. These innovative tools represent tools outside of the traditional text-type tools such as email and discussions. Examples of innovative online communication tools include videos, podcasts, narrated slide presentations, Wimba, etc. The researcher identifies these instructors and then surveys only those students enrolled in the identified classes. By selecting these groups, the participants evaluate the online communication tools with a

better understanding of the online communication tools. Participants cannot evaluate or rank effectiveness of online communication tools without proper exposure and experience. Discovering the online communication tools that students perceive as effective tools strengthens distance education programs.

## APPENDIX A

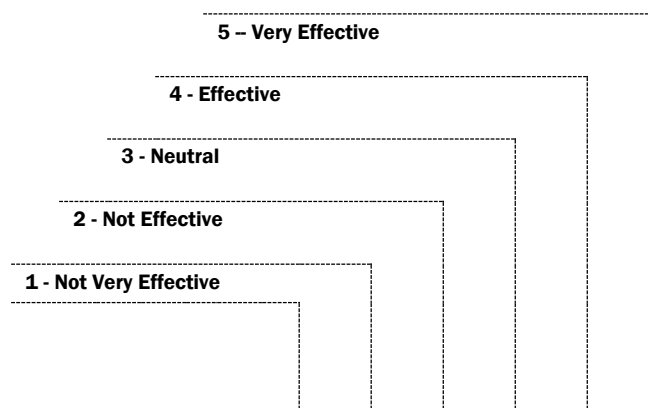
## ONLINE LEARNER COMMUNICATION SURVEY

Please think of your overall experiences with online classes when responding.

The diagram shows a horizontal line with five tick marks. Above the line, five labels are positioned: '1 - Strongly Disagree' above the first tick, '2 - Disagree' above the second, '3 - Neither Agree nor Disagree' above the third, '4 - Agree' above the fourth, and '5 - Strongly Agree' above the fifth. Dotted lines connect the labels to their respective tick marks, forming a stepped pattern that descends from right to left.

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. In my online classes, I have experienced instructional video presentations such as lectures or detailed instructions related to course materials.       | 1 | 2 | 3 | 4 | 5 |
| 2. Audio communication tools such as Wimba, podcasts, and narrated presentations are sometimes utilized in my online classes.                              | 1 | 2 | 3 | 4 | 5 |
| 3. My online classes regularly use written communication such as class notes, written assignments, discussion board posts or online chat sessions.         | 1 | 2 | 3 | 4 | 5 |
| 4. I am encouraged to engage in student-to-student communications in my online classes.  | 1 | 2 | 3 | 4 | 5 |
| 5. I am encouraged to engage in student-to-student communications in my traditional classes.   | 1 | 2 | 3 | 4 | 5 |
| 6. I feel more connected to other students in my online classes than to other students in my traditional classes.  | 1 | 2 | 3 | 4 | 5 |
| 7. I feel more connected to students in my traditional classes than to other students in my online classes.  | 1 | 2 | 3 | 4 | 5 |
| 8. I feel that communication experiences with my instructors and other students in online classes are as good as or better than in my traditional classes. | 1 | 2 | 3 | 4 | 5 |
| 9. I feel that communication experiences with my instructors and other students in traditional classes are as good as or better than in my online classes. | 1 | 2 | 3 | 4 | 5 |
| 10. Online classes offer a better opportunity than traditional classes to ask questions of the instructors.  | 1 | 2 | 3 | 4 | 5 |
| 11. Traditional classes offer a better opportunity than online classes to ask questions of the instructors.  | 1 | 2 | 3 | 4 | 5 |
| 12. Traditional classes offer me a better opportunity to receive personalized feedback from the instructor regarding questions asked.                      | 1 | 2 | 3 | 4 | 5 |
| 13. Online classes offer me a better opportunity to receive personalized feedback from the instructor regarding questions asked.                           | 1 | 2 | 3 | 4 | 5 |
| 14. I am satisfied with how active my instructors are in my online classes.  | 1 | 2 | 3 | 4 | 5 |
| 15. As an online student, I am satisfied with immediate feedback from my instructors.  | 1 | 2 | 3 | 4 | 5 |
| 16. I am satisfied with the availability of my online instructors.   | 1 | 2 | 3 | 4 | 5 |

17. My online instructors present clear, concise instructions for assignments and projects.	1	2	3	4	5
18. As an online student, I am satisfied with the instructors' abilities to communicate ideas and concepts clearly in online classes.	1	2	3	4	5
19. When I am encouraged and motivated to stay engaged in online classes through communication with instructors and other students, I am more likely to complete the class.	1	2	3	4	5
20. I feel that communication is the key to success in completing an online class.	1	2	3	4	5
21. I am more likely to drop or withdraw from an online class due to lack of communication from my instructor.	1	2	3	4	5
22. I am more likely to complete an online class when I do not feel isolated.	1	2	3	4	5
23. Immediate feedback is a major factor that leads to my success and completion of an online class.	1	2	3	4	5
24. Given the opportunity of attending an online class versus a traditional class, I would choose the online class.	1	2	3	4	5



25. Rate the effectiveness of each communication tool when used to communicate with your online instructor.

Discussion areas	1	2	3	4	5
Chat	1	2	3	4	5
Pager	1	2	3	4	5
Phone	1	2	3	4	5
Email	1	2	3	4	5
Wimba	1	2	3	4	5
Videos from instructors	1	2	3	4	5
Podcast or other audio	1	2	3	4	5
Other: _____	1	2	3	4	5

26. What is your age? \_\_\_\_\_
27. What is your gender?      Male    Female
28. What is your level of education?
- 1<sup>st</sup> year of college    2<sup>nd</sup> year of college    More than 2 years
29. Number of online classes completed and currently enrolled:
- 1      2-3            4-5    More than 5
30. How would you rate your computer skills?
- Excellent      Good    Average    Below Average    Poor
31. Please select the types of online communication tools you have used in online classes to communicate with instructors and other students.  
(You may select **more than one**.)
- Discussion areas  
     Live Chat  
     Pager  
     Phone  
     Email  
     Wimba  
     Videos from instructor  
     Podcast or other audio  
     Other: \_\_\_\_\_
32. Which communication tool have you used most often to communicate with your online instructors?
- (Select **ONE**.)
- Discussion areas  
     Chat  
     Pager  
     Phone  
     Email  
     Wimba  
     Videos from instructor  
     Podcast or other audio  
     Other: \_\_\_\_\_

33. Please select any barriers you have in taking online classes:

(You may select **more than one**.)

- Fast Internet service that is capable of delivering video and audio.
- Outdated computer
- Outdated software
- Financial constraints
- Other: \_\_\_\_\_

Please feel free to leave any other comments you have regarding communication between you and your instructor or you and other students in your online classes.

## APPENDIX B

## SURVEY MEMO TO STUDENTS

Dear XXXXX Online Student

***Would you like a chance to win a \$50 iTunes gift card for approximately 10 minutes of your time?***

You are invited to participate in a significant research project regarding how you feel about communication in online classes. By completing and submitting this survey, you will automatically be entered into a drawing for a ***\$50 iTunes gift card!*** I am an XXXXX faculty member who is a USM doctoral student, and I am conducting a research project entitled *Community College Students' Perceptions of Effective Communication in Online Learning*. Your anonymous participation in this survey is greatly appreciated. Both XXXXX and USM have approved this research project. Completing this survey should take approximately 10 minutes or less.

By clicking on the survey link located at the top of this memo, you are agreeing to the following:

- You are at least 18 years old.
- You are completing this survey on a voluntary basis.
- You expect no compensation for completing this survey.

Your feedback regarding communication in online learning is very important to faculty and administrators to ensure that you are receiving the quality online education you deserve.

Completing this survey is voluntary and anonymous. You have the right to decline participation or to withdraw from it at any point.

Thank you for your participation. If you have questions concerning this survey, please feel free to contact me.

Sincerely

Donna Parker

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.



APPENDIX C

COMMUNITY COLLEGE APPROVAL OF STUDY

[Redacted]

application.

I further agree to regularly meet with the student researcher to monitor his or her progress; and if problems arise, I will become personally available to help the student researcher resolve those problems. As an advisor of this project, I will assure the protection of the rights and welfare of human participants, secure conduct of the research, and the ethical performance of the project. I will comply with all applicable federal, state, and local laws regarding the protection of participants in human research.

*Shawn E. Lane*  
Signature of Research Advisor

*September 29, 2011*  
Date

**Vice President of Instruction, Student Services, and Related Technologies** – I acknowledge on behalf of the [Redacted] Council that this research has been reviewed and has subsequently received the following recommendation by consensus of the Executive Council membership:

- Approved
- Approved with Stipulations:
- Tabled for Further Review
- Not Approved

*Researcher must submit study results to Vice President of Instruction, Student Services and Related Technologies. MG-CCJ reserves the right to ask researcher to present this study results to MG-CCJ employees or other audiences.*

[Redacted]

\_\_\_\_\_  
struction, Student Services, and Related Technologies Date

## APPENDIX D

## ONLINE LEARNER COMMUNICATION SURVEY VALIDITY QUESTIONNAIRE

Thank you for agreeing to serve on this panel of experts to review the attached Online Communication Survey. This survey is designed to obtain information and data regarding how community college students perceive the effectiveness of communication in their online classes. Your contribution is an important part of my dissertation. Your time in reviewing the survey and answering this questionnaire is greatly appreciated. Is the language in the Online Communication Survey easily understood by community college students?

---

---

Does the survey address specific concerns in the statements related to acquiring data regarding how community college students perceive the effectiveness of communication in their online classes?

---

---

Do you perceive any of the statements or questions on the survey to be offensive or obtusive?

---

---

Are there any statements or questions you would recommend to exclude from the survey?

---

---

Are there any statements or questions that you would recommend to add to the survey?

---

---

Do you have any other comments or suggestions regarding the survey? If so, please list your comments:

---

---

*(If you need additional space to record answers, attach additional pages as needed.)*

## APPENDIX E

## USM'S IRB APPROVAL

## INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001

Phone: 601.266.6820 | Fax: 601.266.4377 | [www.usm.edu/irb](http://www.usm.edu/irb)

## NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

The risks to subjects are minimized.

The risks to subjects are reasonable in relation to the anticipated benefits.

The selection of subjects is equitable.

Informed consent is adequate and appropriately documented.

Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.

Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.

Appropriate additional safeguards have been included to protect vulnerable subjects.

Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".

If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 11102702

PROJECT TITLE: Community College Students' Perception on Effective Communication in Online Learning

PROJECT TYPE: Dissertation

RESEARCHER/S: Donna Parker

COLLEGE/DIVISION: College of Education & Psychology

DEPARTMENT: Curriculum, Instruction, & Special Education

FUNDING AGENCY: N/A

IRB COMMITTEE ACTION: Exempt Approval

PERIOD OF PROJECT APPROVAL: 11/17/2011 to 11/16/2012

Lawrence A. Hosman, Ph.D.  
Institutional Review Board Chair

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