January 2016

Community College Faculty Members' Perceptions Of Creating Digital Content To Enhance Online Instructor Social Presence

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COMMUNITY COLLEGE FACULTY MEMBERS' PERCEPTIONS OF CREATING DIGITAL CONTENT TO ENHANCE ONLINE INSTRUCTOR SOCIAL PRESENCE

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
May
2016

This dissertation, submitted by Karen M. Arlien in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Department Teaching and Learning

Degree Doctor of Philosophy

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Karen M. Arlien
4/5/2016

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ACKNOWLEDGMENTS

I want to acknowledge the most rewarding aspect of my journey to earning a doctoral degree: the people I worked with. I would like to extend a sincere thank you to my committee members for their guidance and support: Dr. Kathy Smart, Dr. Rob Stupnisky, Dr. Bonni Gourneau, and Dr. Ron Marsh. I appreciate the time and expertise you shared with me.

Also, thank you to all of the incredibly talented, dedicated, and creative individuals in my doctoral cohort. I learned with you and from you. Our camaraderie made weekend classes fun and enjoyable. I am grateful you have become part of my personal and professional network.

Finally, I must thank Vickie Volk and Katrina Eberhart, my colleagues as well as fellow doctoral cohort students. Your encouragement was helpful, but your willingness to listen and ability to empathize was crucial to my success. A very special thanks to Katrina for reviewing my writing in a superbly timely manner and providing honest feedback. I'm a much better writer because of your help and guidance.

To my family,

your support and reassurance helped me through to the end. I only regret the numerous evening, weekend, and holiday hours spent on my degree that we will never be able to reclaim.

John Arlien, my husband of 30 years as of this coming July 12th.
Jared & Amber Arlien, my favorite oldest son & daughter-in-law.
Ethan Arlien, my favorite middle son.
Keenan Arlien, my favorite youngest son.

Pat Robbins, my mom, who always understood and never made me feel guilty for not being able to come visit because "I have to work on my paper".

JP Robbins, my brother, who passed away at the very beginning of my doctoral journey. I wish you were here to remind me "there's no fool like an educated fool". We would have had a good laugh about that. I miss you so much.

I love you all.

ABSTRACT

Current technologies, specifically asynchronous video, allow instructors to enhance their online instructor social presence (OISP) by creating digital content in which they can simultaneously convey their unique persona verbally and nonverbally while supplementing course content. A strong OISP has been shown to contribute toward students' successful course completion, which continues to be an issue at community colleges. Existing research on the use of digital content to enhance OISP, however, has primarily focused on students' perceptions even though faculty members are responsible for establishing OISP. The purpose of this study was to ascertain community college faculty members' perceptions of creating asynchronous videos (i.e., digital content) to enhance OISP; specifically, OISP enhancements related to verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort required to create digital content.

A sampling frame of faculty members who teach online courses at five Midwestern U. S. community colleges were invited to participate in this quantitative study by completing the web-based survey. Responses from 91 faculty members were ultimately used to conduct the main analyses to determine if faculty members with different demographic characteristics, digital content creation, or self-reported student course completion rates differ significantly in terms of their perceptions.

The results indicated 45.6% of faculty members create digital content, while 27.8% of them do not but *would like to*. No significant differences were found between faculty members who do, do not, or would like to create digital content. However, there were several noticeable differences between their response mean levels for intentionally demonstrated verbal/nonverbal immediacy behaviors, digital content use as a contributing factor toward student's successful course completion, and institutional recognition for effort required to create digital content. Additionally, strong positive correlations were found between verbal immediacy behaviors, nonverbal immediacy behaviors, and digital content use impacting successful course completion. Study results offer preliminary insight to community college faculty members and administrators about the percent and demographics of community college faculty members who are using asynchronous video to create digital content, how frequently faculty members are audible or visible in their digital content, and their perceptions of digital content creation.

CHAPTER I

INTRODUCTION

The roles of an online faculty member are numerous and varied. They are responsible for planning and administering the educational experience, facilitating a social environment that promotes active learning, as well as instructing and guiding learners because of subject matter expertise (Anderson, Rourke, Garrison, & Archer, 2001). Additionally, they are responsible for establishing and maintaining a social presence. Instructor social presence in an online course, the degree to which a learner feels personally connected with the instructor (Sung & Mayer, 2012), has been and continues to be established in numerous ways. Examples include the way a particular course is organized and designed, the use of text-based narrative and correspondence (e.g., course announcements, directions for completing assignments, participation in online discussions, email messages, etc.), the use of pictures and video recordings to convey course content, providing timely feedback on students' assignments and questions, and the use of humor. According to Kelly (2012), "online instructors need to be intentional about creating a sense of presence" (p. 1). Instructor social presence may help online students get to know an instructor they might never meet face-to-face and also may help students perceive that the instructor cares about them as learners and as individuals.

Current technologies, specifically asynchronous video, allow instructors to enhance their online instructor social presence (OISP) through the creation of *digital content.* For the purposes of this study, digital content is defined as any online course content created by the instructor using asynchronous video technologies. Digital content allows online faculty members to simultaneously create supplemental course content (e.g., provide an overview of the course, introduce a discussion topic, demonstrate a procedure, explain a difficult concept, etc.) while conveying their unique persona verbally (i.e., intonation, inclusion verbiage, personalized style, etc.) and nonverbally (i.e., eye contact, gestures, body language, etc.). These verbal and nonverbal behaviors increase the feeling of immediacy, a perceived physical or psychological closeness (i.e., connection or caring), and thus have been termed *immediacy behaviors* (LeFebvre & Allen, 2014; Schutt, Allen & Laumakis, 2009). Although a faculty member who creates an asynchronous video recording does not need to be audible or visible (e.g., a silent video with text-based narrative could be created to demonstrate the proper procedures for saving a file using specific naming conventions), immediacy behaviors conveyed via video enable online students to "see and hear an instructor who is excited, enthusiastic, caring, and dedicated to his or her students, the subject, and the course" (Sull, 2010, p. 6), thereby enhancing OISP. A strong OISP has been shown to contribute toward successful course completion, which continues to be an issue at community colleges (Jaggars, Edgecombe, & Stacey, 2013b). However, creating digital content for an online course requires effort that faculty members may not feel their institution recognizes. This study sought to ascertain community college faculty members' perceptions of creating digital content to enhance OISP specifically related to verbal and nonverbal immediacy

behaviors, successful course completion, and recognition from their institution for the effort required to create digital content.

The survey instrument used in this study was designed to establish what percent of community college online faculty members are creating digital content, how frequently they are audible or visible in their digital content, and their demographics. It was also designed to gain their perceptions of intentionally demonstrating verbal or nonverbal immediacy behaviors in digital content they create using asynchronous video technologies, if these faculty members perceive enhanced OISP as a contributing factor toward students' successful course completion, and if they perceive any recognition from their institution for the effort required to create digital content. These faculty member perspectives were examined using the theoretical lens of Garrison, Anderson, and Archer's (2000) Community of Inquiry framework.

This study sought to ascertain faculty members' perceptions because they are responsible for establishing an OISP. A sampling frame of full-time and adjunct faculty members who teach online courses at five Midwestern community colleges that are part of a single, public university system were invited to complete the survey (N = 409). The quantitative data was tabulated and used to address the four research questions in this study.

Statement of the Problem

Establishing an OISP has historically been accomplished through the use of primarily text-based content, class discussions, and personal communications including, but not limited to, email messages, course announcements, directions for completing assignments, feedback on completed assignments, and participation in online discussions

(Pacansky-Brock, 2014). Although OISP can be established without the use of digital content, faculty members who are able to demonstrate immediacy behaviors can enhance their OISP. Demonstrating immediacy behaviors is more readily accomplished in a face-to-face learning environment than an online learning environment. However, the challenge is not insurmountable. Borup, West, and Graham (2012, 2013) found an instructor's ability to convey these personality-defining behaviors through asynchronous video can help establish OISP. Capable of capturing and conveying image and sound, asynchronous video technologies provide online faculty members with a more direct medium for simultaneously supplementing course content while sharing their unique persona with students, thereby enhancing their OISP. Conversely, Schutt et al. (2009) found OISP was not enhanced when the instructor was visible and *not* intentionally demonstrating nonverbal immediacy behaviors, and cautioned that faculty members need to be knowledgeable about such behaviors in order to use them. Therefore, it is necessary to determine what percent of community college online faculty members are using video technologies to create digital content, how frequently they are audible or visible in their digital content, and if they perceive they are intentionally demonstrating immediacy behaviors in their digital content. Furthermore, if faculty members do not know the benefits students glean from a strong OISP they may need to be made aware.

Numerous studies, although not focused on community colleges, have reported students' perceptions of faculty members using video to enhance OISP (Borup, Graham, & Velasquez, 2011; Borup et al., 2012; Griffiths & Graham, 2009; Schutt et al., 2009). The results indicate students believe these video recordings allowed them to see their instructor as a real person, get to know them better, and perceive greater satisfaction with

the course. LeFebvre and Allen (2014) report these types of positive perceptions increase the likelihood of students putting forth more effort and committing to successful course completion. Recognizing this contribution toward successful online course completion is significant because drop rates, failure rates, and poor performance are still prevalent among online community college students (Jaggars, Edgecombe, & Stacey, 2013c) yet student enrollments in these courses continue to rise (Lokken & Mullins, 2014).

Even though an enhanced OISP can benefit students, the effort required to create digital content must be considered. Anderson et al. (2001) reported faculty members already feel that teaching online takes more time and effort than teaching on campus due to the many roles assumed by the online faculty member: educational experience designer and evaluator, facilitator of a social environment that promotes active learning, instructor and guide for learners because of subject matter expertise. Creating digital content is an additional task using additional tools that requires additional effort. In a community college environment, where teaching loads are usually higher than those assigned at a research institution (Jenkins, 2012), this extra effort may not be perceived as feasible or equitable.

As described here, asynchronous video is an approach online faculty members can use to "maintain and even develop a nurturing relationship with learners despite being separated in time and space" (Borup et al., 2011, p. 33), yet online courses should incorporate a "mixture of audio, visual, and written communication instruction … to reach all types and backgrounds of students" (Murphrey, Arnold, Foster, & Degenhart, 2012, p. 24). Many online courses at the community college level still consist heavily of text-based course materials and lack auditory or visual stimuli (Jaggars et al., 2013b).

Accordingly, the Community of Inquiry framework (Garrison et al., 2000) was adopted as the foundation for this study as it specifically addresses the role of instructors in establishing their social presence in conjunction with their teaching presence.

Theoretical Framework

According to the Community of Inquiry framework (Garrison et al., 2000), members of an educational community, specifically the teacher and students, create deep and meaningful learning experiences by interdependently developing the social, cognitive, and teaching presence elements of an educational experience. Focusing on two of the three elements for the purposes of this study, Garrison and Arbaugh (2007) describe *social* presence as the ability to project one's full personality through the given communication medium, with a defining characteristic of affective expression related to the conveyed emotion, feelings, and attitude. They describe *teaching* presence as the design, direction, and facilitation of the learning experience, encompassing the social element, mutually focused on building a shared meaning and sense of belonging among the community members. They describe *cognitive* presence, which is not a primary focus of this study, as the students' ability to construct meaning from the learning experience.

The distinction between social presence and teaching presence is not clear-cut. Various terms have been coined to describe the overlapping behaviors between these two elements: *learner-instructor interaction* (Arbaugh & Benbunan-Fich, 2007), *virtual identity* (Johnston, 2011), *online teaching persona* (Baran & Correia, 2014; Kelly, 2010), *digital persona* (de Kerckhove & de Almeida, 2013), and *instructor presence* (Dennen, 2007; Jaggars et al., 2013b; Kelly, 2012; Monsivais, 2014). For the purposes of this study, however, the term *instructor social presence* used by Lowenthal and Lowenthal

(2010) best describes the interdependent nature of the social element encompassed within the teaching element. Establishing this instructor social presence ultimately lies with the online faculty member.

Need for the Study

Little research to date has focused on community college online faculty members' perceptions of creating digital content to enhance OISP, specifically, investigations on the factors of verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort required to create digital content. Studies have reported online university faculty members' perceptions of video as a useful tool to enhance OISP (Borup et al., 2011; Griffiths & Graham, 2009). Likewise, studies have reported online university students' perceptions of enhanced OISP due to video use (Borup et al., 2012; LeFebvre & Allen, 2014; Schutt et al., 2009). A recent study to determine how online university faculty members establish and maintain OISP only reviewed text-based, online discussion forums (Lowenthal & Lowenthal, 2010). Another study reporting online university instructors' perceptions of OISP focused on strategies other than creating digital content (Kennedy, Young, & Bruce, 2012). In reality, these studies represent a small percentage of all online teaching faculty members, let alone community college online faculty members. Rucks-Ahidiana, Barragan, and Edgecombe (2013) did look at community college faculty members' use of technologies in online courses but did not explore the enhanced OISP capabilities of video.

Purpose of the Study

The purpose of this study was to determine what percent of community college online faculty members are creating digital content, how frequently they are audible or

visible in their digital content, and their demographics. It also sought to ascertain their perceptions of creating digital content to enhance OISP specifically related to verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort required to create digital content. Using the Community of Inquiry (CoI) framework, this study addressed faculty members' views of OISP, a term that refers to the overlapping behaviors associated with only the social presence and teaching presence aspects of CoI as they pertain to faculty members who teach online courses.

Research Questions

The primary research questions addressed in this quantitative study of community college faculty members' perceptions of creating digital content to enhance OISP were as follows:

1. What percent of community college faculty members are using video technologies to create digital content in online courses, how often are they audible or visible in their digital content, and what are their demographics?
2. What are community college faculty members' perceptions of using video technologies to create digital content in online courses as a means to intentionally convey verbal and nonverbal immediacy behaviors?
3. What are community college faculty members' perceptions of enhanced online instructor social presence as a contributing factor toward online students' successful course completion?

4. What are community college faculty members' perceptions of the recognition they receive from their institution for using video technologies to create digital content for use in their online courses?

Importance of the Study

The importance of this study was its focus on the community college online faculty member's point of view as they are ultimately responsible for establishing and maintaining OISP in their role as an instructor: one half the membership of an online learning community as defined in the CoI framework. Because increased OISP can impact students' successful course completion, the importance is underscored by three related factors: continued growth in community college online course enrollments, known drop/failure rates in community college online courses, and recent performance-based funding model changes that allocate state funding based on students' credit hours earned.

According to Allen, Seaman, Lederman, and Jaschik (2012), approximately 34% of all higher education faculty members who teach online courses create digital material and resources. More specifically, the National Center for Education Statistics (NCES; Parsad & Lewis, 2008) found that 21% of public two-year colleges reported using one-way prerecorded (i.e., asynchronous) video to deliver online instruction. These disparate percentages do not indicate the extent to which community college faculty members are using video technologies to create digital content as a means to enhance their OISP. The findings from this study may provide guidance regarding professional development for online faculty members.

Additionally, although online course enrollments continue to increase at community colleges (Lokken & Mullins, 2014), successful online course completion continues to be a challenging issue for academic leaders (Allen & Seaman, 2013), faculty members, and students alike. Paired with today's performance-based funding models that tie state funding to students' credit hours earned (Anderson, 2013), community colleges have even more reason to strive for students' successful online course completion. As evidenced in the current study, a strong OISP has been found to contribute toward students' successful online course completion. Therefore, it is critical that we know if faculty members believe this: if they do not believe that a strong instructor social presence can impact successful online course completion they likely will not take steps to enhance their OISP using digital content.

Finally, failure to recognize the extra effort invested by community college faculty members who already create digital content for online course use may actually discourage other online faculty members from doing so. According to Allen et al. (2012), slightly more faculty members disagree than agree that their institution has a fair system in place to reward their contributions to digital pedagogy. In other words, in regard to creating digital course materials, "faculty are not sure their work is appreciated" (Lorenzetti, 2012, p. 5).

Delimitations

The scope of this study was limited to community college online faculty members employed by a Midwestern public university system. The researcher acknowledges that instructor social presence is also important in all learning environments and at institutions other than community colleges. The decision to focus on community colleges and online

courses stemmed from a personal, career-related interest. The decision to recruit participants from this university system was based on convenience. All potential participant names were identifiable on their respective institution's website because online and on-campus course schedules are publicly posted per semester. Names were matched to email addresses through these websites as well.

Another delimitation of this study was that the selection of verbal and nonverbal immediacy behaviors were limited to those that can be demonstrated by online faculty members when creating digital content. Truly there is a breadth of both verbal and nonverbal immediacy behaviors that are demonstrable in a face-to-face setting. Verbal examples include calling on students to answer questions and asking students how they feel about an assignment. Nonverbal examples include touching students on the shoulder or arm while talking to them and moving closer to students while talking to them. The focus of this study was not face-to-face settings.

Assumptions

1. The online course lists posted on each community college's public website provided an accurate and complete listing of available online courses and corresponding instructors within a single Midwestern public university system.
2. All community college faculty members who volunteered to participate had taught at least one online course during the past academic year.
3. The majority of participants were responsible for designing their own online courses, although the researcher is aware that some had taught a course designed by someone else.

4. Each participant was honest in their self-reported responses and completed all survey items.

Definitions

For the purposes of this study, the key terms were defined as follows:

- *Video Technologies*: Software applications capable of conveying and capturing image and sound asynchronously such as Camtasia, Tegrity, or Jing.
- *Digital Content*: Any online course content created using asynchronous video technologies. The content may or may not include the instructor demonstrating verbal or nonverbal immediacy behaviors.
- *Verbal immediacy behaviors*: Intonation, inclusion verbiage, and personalized style of expression that facilitate a sense of closeness with another person such as sharing personal examples, using humor, addressing students by name, including students by referring to the class as 'ours', and providing feedback and praise (Gorham, 1988; LeFebvre & Allen, 2014; Schutt et al., 2009). For the purposes of this study, verbal immediacy behaviors were limited to those that can be demonstrated by online faculty members when creating digital content.
- *Nonverbal immediacy behaviors*: Body language and gestures that facilitate a sense of closeness with another person such as smiling, nodding, looking at the learner when speaking, relaxed body posture, and hand/arm gestures (LeFebvre & Allen, 2014; Richmond, McCroskey, & Johnson, 2003; Schutt et al., 2009). For the purposes of this study, nonverbal immediacy behaviors were limited to those that can be demonstrated by online faculty members when creating digital content.

- *Social Presence*: The instructor's ability to project their full personality by means of the given communication medium, thereby enabling students to perceive them as a "real" person (Garrison & Arbaugh, 2007).
- *Teaching Presence*: The design, direction, and facilitation of the learning experience. Examples would include course design and organization, discourse with students, and direct instruction (Garrison & Arbaugh, 2007).
- *Online Instructor Social Presence (OISP)*: "the way [online] faculty establish their own social presence through their instructional design and facilitation efforts" (Lowenthal & Lowenthal, 2010, p. 3). In essence, the overlapping, interdependent behaviors associated with social presence and teaching presence in an online course.
- *Enhanced Online Instructor Social Presence*: the use of digital content to demonstrate verbal and/or nonverbal immediacy behaviors in order to improve or strengthen online instructor social presence.
- *Online or distance course*: "a course where most or all of the content is delivered online. Typically have no face-to-face meetings" (Allen & Seaman, 2013, p. 6).
- *Successful course completion*: The act of a student earning a passing grade in a single, credit-hour based community college online course (N.D.C.C., 2013).

Summary

Establishing an OISP has historically been accomplished through the use of primarily text-based content, class discussions, and personal communications including, but not limited to, email messages, course announcements, directions for completing assignments, feedback on completed assignments, and participation in online discussions (Pacansky-Brock, 2014). Asynchronous video technologies, capable of capturing and

conveying image and sound, provide online faculty members with a more direct medium for simultaneously supplementing course content while sharing their unique persona with students, thereby enhancing their OISP. Realistically, though, the effort required to create this digital content may not be "worth it" for faculty members even though studies have shown that a strong online instructor presence contributes toward students' successful course completion. The purpose of this study was to ascertain community college faculty members' perceptions of creating digital content to enhance OISP specifically related to verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort required to create digital content.

This chapter provided an introduction to the research problem under consideration as well as a brief outline of CoI, which served as the theoretical framework for this research. A need for this study was established based on current literature, a study purpose statement was provided to explain intent, and the study delimitations, limitations, and assumptions were also presented. This chapter concluded with a list of terms that define and support the current study. A comprehensive review of the germane body of literature is presented in the next chapter.

CHAPTER II

LITERATURE REVIEW

"When you teach, you enter a relationship with students. Regardless of whether they are talking, listening, writing, or reading, you and they share an *interactive* process" (Filene, 2005, p. 132). This chapter is structured around five major ideas that collectively support the need to ascertain community college faculty members' perceptions of creating digital content to enhance online instructor social presence (OISP). First, the importance of establishing and maintaining OISP. Second, demonstrated immediacy behaviors enhance OISP. Third, digital content to convey immediacy and enhance OISP. Fourth, OISP contributes toward successful course completion. Fifth, perceived institutional recognition for creating digital content.

Importance of Establishing and Maintaining Online Instructor Social Presence

One role of an online faculty member is to instruct and guide students as a subject matter expert. However, according to Filene (2005), more than scholarly knowledge is needed to successfully interact with students. Faculty members need to be able to communicate *enthusiastically* in a *clear* and *organized* manner in order to *stimulate* a desire to learn and sustain a *caring* learning environment. The appropriate balance between being a scholar and being human is necessary to establish and maintain an OISP.

Defining Online Instructor Social Presence

In a face-to-face learning environment, students get to know the human quality of their instructor because they are able to see, hear, and interact with him or her. Students can experience the emotions, expressions, and body language of an instructor who is excited, happy, pleasant, and compassionate, or conversely, tired, irritated, arrogant, or not feeling well. Students can experience the human quality of someone who makes a mistake and corrects themselves while demonstrating or speaking. In other words, in a face-to-face environment students have the opportunity to get to know the instructor as more than just a subject matter expert. How, then, do students get to know the human quality of their instructor in an online course that never meets face-to-face?

In the online learning environment, this sense of presence must be crafted more intentionally by the faculty member because of the lack of face-to-face contact (Kelly, 2010, 2012; Monsivais, 2014). Creating online presence "doesn't just naturally happen … [it] is a result of awareness, understanding, involvement through experience, and intentional planning and design on the part of the instructor" (Lehman & Conceiçào, 2010, p. 4). The online instructor, lacking physical presence, uses the learning management system and online communication tools to interact with students and establish a classroom presence. For example, interactions such as providing a course overview, giving feedback on students' assignments, and leading a class discussion can be easily replicated online (Sugar, Martindale, & Crawley, 2007). Other interactions are not so easily replicated: spontaneous discussions, meeting/participating at the same time on scheduled days, and providing nonverbal cues such as nodding in agreement or smiling (Sugar et al., 2007). While most of these examples can still depict the scholarly

aspect of teaching, being present also has a non-scholarly, human aspect that must be considered.

The human aspect of teaching involves faculty members showing learners they care about them as individuals as well as students. Faculty members who show empathy, concern, and demonstrate flexibility in demanding situations help foster this sense of caring (Bonk, Kirkley, Hara, & Dennen, 2001), as do faculty members who are visible, organized, and compassionate (Savery, 2005). This combination of scholarly instruction and human compassion is referred to as online instructor social presence.

Online instructor social presence can be defined as "the way [online] faculty establish their own social presence through their instructional design and facilitation efforts" (Lowenthal & Lowenthal, 2010, p. 3). Essentially, students perceive the presence of their instructor as they become familiar with the specific way an online course is designed and organized, as well as through communications (e.g., course announcements, emails, directions for completing assignments) with that particular instructor. This definition encompasses the overlapping behaviors associated with the social presence and teaching presence elements of the Community of Inquiry framework (see Figure 1).

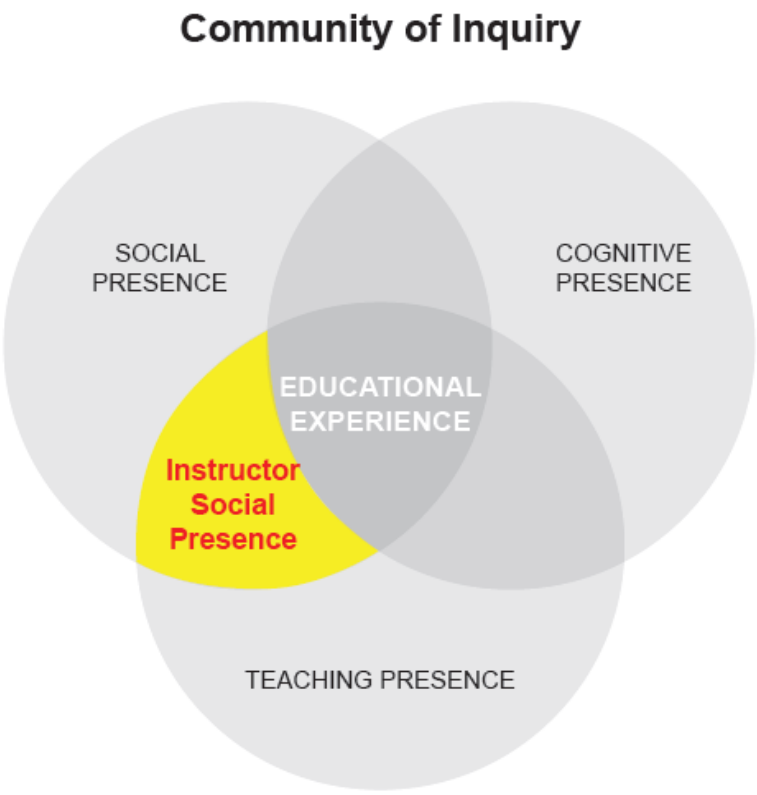

Figure 1. Community of Inquiry Framework. Reprinted from "A Mixed Methods Examination of Instructor Social Presence in Accelerated Online Courses" by A. Lowenthal and P. R. Lowenthal, 2010, American Education Research Association, p. 4. Denver, CO: AERA.

According to the Community of Inquiry framework (Garrison et al., 2000), members of an educational community, specifically the teacher and students, create deep and meaningful learning experiences by interdependently developing the social, cognitive, and teaching presence elements of an educational experience (see Figure 2). These elements become "crucial prerequisites for a successful higher educational experience" (Garrison et al., 2000, p. 87).

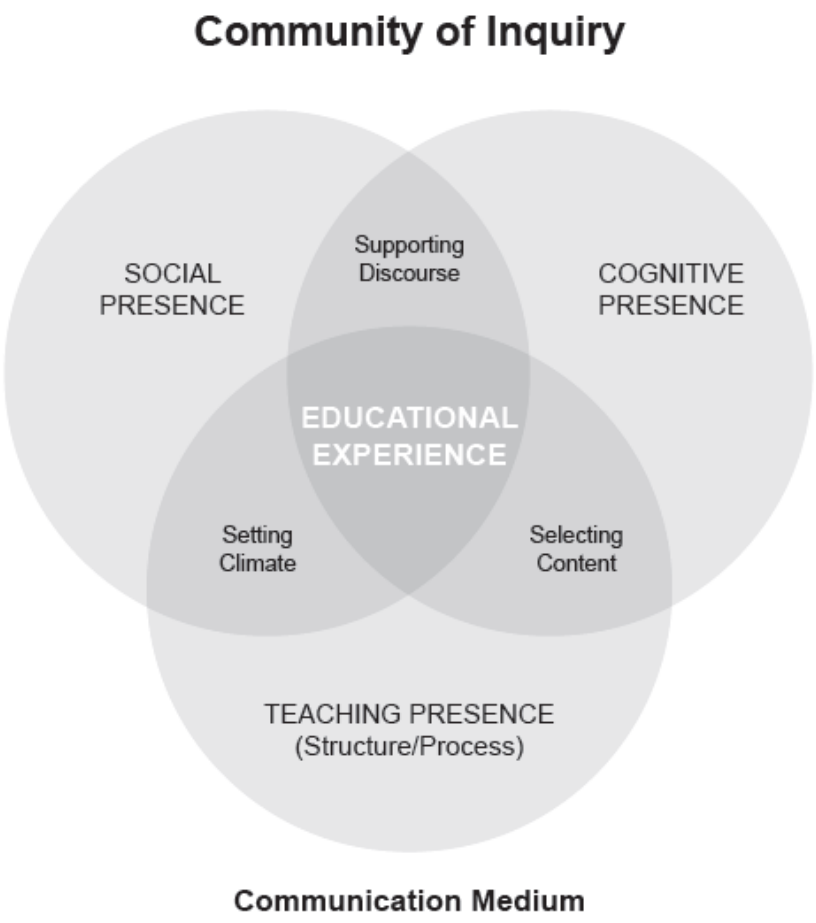

Figure 2. Community of inquiry framework. Reprinted from "Researching the community of inquiry framework: Review, issues, and future directions" by D. R. Garrison and J. B. Arbaugh, 2007, *Internet and Higher Education, 10*, p. 158.

Focusing on two of the three CoI elements for the purposes of this study, Garrison and Arbaugh (2007) describe *social* presence as the ability to project one's full personality through the given communication medium, with a defining characteristic of affective expression related to the conveyed emotion, feelings, and attitude. The second element, *teaching* presence, can be described as the design, direction, and facilitation of the learning experience, encompassing the social element, mutually focused on building a shared meaning and sense of belonging among the community members (Anderson et al., 2001; Garrison & Arbaugh, 2007). The third element, *cognitive* presence, pertains to

students' ability to construct meaning from the learning experience (Garrison & Arbaugh, 2007) and is not a primary focus of this study.

Although this framework was originally developed to describe learning that takes place in online text-based threaded discussions, it has since been researched in other instructional contexts (Remesal & Friesen, 2014). For example, Lowenthal and Lowenthal (2010) analyzed text-based discussions to examine the nature of instructor social presence in *accelerated* online courses, Borup et al. (2012) studied the use of *asynchronous video technologies* in an online learning environment as a way to support the development of communities of inquiry, and Giesbers, Rienties, Tempelaar, and Gijselaers (2014) evaluated the impact *synchronous video technologies* used for online class discussions had on students' perceptions of learning satisfaction and course pass rate. In a similar study that was not grounded in the CoI framework, Borup et al. (2011) reviewed the use of asynchronous video communication in a *blended learning environment* as a way to improve instructor immediacy and social presence. These studies served as the basis for the current study and will be referenced and discussed in more depth throughout this chapter.

The current study used the CoI framework to investigate the faculty perspective of asynchronous video technology use in online courses and the impact that may have on OISP. While the CoI framework identifies core elements of presence necessary for successful learning and provides a broad guide for online learning research and practice (Anderson et al., 2001; Garrison & Arbaugh, 2007), there is also a need to be concerned with what members of an online learning community "actually do during online courses and how this behavior relates to their perceptions" (Lowenthal & Dunlap, 2014, p. 27).

Essentially, the members of a CoI need to know how to be a productive member of this community (Garrison & Arbaugh, 2007). Therefore, the current study was concerned with how faculty members—one half of the membership of an online learning community—use digital content and how this behavior relates to their perceptions of OISP. The results will add to the current body of knowledge regarding the overlapping roles of establishing teaching and social presence in a CoI.

Lack of Consistent Terminology

Although the CoI framework depicts teaching presence and social presence as two separate elements, the literature regarding these concepts is not as definitive. Various terms have been coined to describe the overlapping behaviors between these two elements:

- *learner-instructor interaction* (Arbaugh & Benbunan-Fich, 2007) – the level of involvement between the instructor and students along with students' perceptions of instructor proximity based on his/her online presence.
- *virtual identity* (Johnston, 2011) – consciously constructed by the teacher through course design, establishing and modeling expected online formality and behavior, determining how and when interactions with students should occur, and exhibiting behaviors to show caring and involvement.
- *online teaching persona* (Baran & Correia, 2014; Kelly, 2010) – an individual instructor's characteristics demonstrated through caring and compassion, course design, writing style, expression of humor, knowing

the students and guiding their learning, and being organized and authoritative, yet flexible.

- *digital persona* (de Kerckhove & de Almeida, 2013) – an instructor's individual identity extended to an online environment. This identity is comprised of numerous aspects (social, personal, institutional, technological, scientific, and legal) that need to be collectively managed.
- *instructor presence* (Dennen, 2007; Jaggars et al., 2013b; Kelly, 2012; Monsivais, 2014) – students' impression of their instructor, perceptions of how that instructor uniquely guides the online learning experience, along with the level of interpersonal interactions with that instructor.
- *instructor social presence* (Lowenthal & Lowenthal, 2010) – the way an instructor establishes an online social presence through their course design and facilitation efforts.

Each of these terms depicts the instructor's dual role of designing and guiding instruction as well as their role of assuring students he or she is an approachable person who cares about them and is involved in the learning process. For the purposes of this study, however, the last term best describes the interdependent nature of the social element encompassed within the teaching element. Establishing this *instructor social presence* in an online learning environment is an important part of the online faculty members' role.

Significance of OISP

"Presence is the most important best practice for an online course" (Boettcher & Conrad, 2010, p. 53). The importance of establishing an OISP relates to how it positively

impacts students' perceptions of community and learning. According to Johnston (2011), details of the virtual instructional environment such as fonts, colors, images, and technology make up the content of the course, but "behind every online course, every assignment and academic home page lives an individual—the professor—whose online persona is an essential but generally unacknowledged part of the student experience" (p. 89). An instructor who is perceived as enthusiastic, strong, and active in the online course can increase the students' sense of learning and belonging in that learning community (Arbaugh & Benbunan-Fich, 2007; Kelly, 2010; Shea, Li, & Pickett, 2006; Sull, 2010). Boettcher and Conrad (2010) add "research links presence most closely to student satisfaction and a related belief that a course is effective" (p. 53). In other words, OISP translates into perceived caring about online students as individuals and as learners.

Conversely, when there is a perceived lack of OISP, some learners are impacted negatively. Students may experience feelings of isolation and dissatisfaction when their instructor is not actively involved in the learning or does not seem to care, and students enrolled only in online programs may experience this to an even greater degree (Kelly, 2012). These feelings may lead to lower student achievement and higher drop-out rates (Rovai & Wighting, 2005). However, instructor behaviors that establish presence by building an online community—in essence those behaviors that convey caring and active involvement with learners—can reduce feelings of isolation and alienation that may occur due to the physical separation of online students from their instructor (Arbaugh & Benbunan-Fich, 2007; Morris, 2011; Rovai & Wighting, 2005; Sung & Mayer, 2012; Yuan & Kim, 2014) and motivate students to persist in their learning (Yuan & Kim, 2014). Overall, students indicate higher satisfaction with an online course when they

perceive the instructor cares about them and is involved in the learning (Ice, Curtis, Phillips, & Wells, 2007; Morris, 2011). These caring behaviors that establish OISP can be demonstrated in a variety of ways.

Strategies for Demonstrating Behaviors to Establish OISP

Behaviors that help students perceive faculty members as active, enthusiastic, and caring (i.e., present) can be demonstrated through course design, course facilitation, and the faculty member's own unique personality. Course design strategies may include sharing a brief instructor biography with or without an accompanying photo as a means for students to meet the instructor or creating threaded discussions as a means of stimulating conversation (Boettcher & Conrad, 2010; Kelly, 2012; Monsivais, 2014; Yuan & Kim, 2014). Additional strategies might include using the time-released feature of a learning management system to post announcements for reminders and general messages or having students post a picture of themselves in order to 'put a name with a face' (Boettcher & Conrad, 2010; Regan, Evmenova, & Baker, 2014).

Strategies that faculty members may use to help online students perceive active course facilitation include talking with students on the phone, asking for feedback throughout the course, and sending e-mail messages to a single student or the entire class to provide feedback or other communication (Boettcher & Conrad, 2010; Kelly, 2012). Other course facilitation strategies might include utilizing interaction tools such as an electronic whiteboard, discussion board, or message chat and grading assignments on a regular basis (Boettcher & Conrad, 2010; Kelly, 2012; Monsivais, 2014; Wei, Chen, & Kinshuk, 2012; Yuan & Kim, 2014). Also, each faculty member's policies regarding expectations for feedback and response to questions, amount of participation in online

discussions, and regularity of monitoring class communications all demonstrate active course facilitation to students and further establish presence (Kelly, 2010; Monsivais, 2014; Wei et al., 2012; Yuan & Kim, 2014).

Additionally, each faculty member brings a unique personality to their online course. A faculty member may share personal stories, express humor, show emotion, initiate and participate in content-based discussions as well as more social discussions (e.g., current events, weekend plans, etc.), and demonstrate polite, professional communication techniques. Establishing and maintaining OISP, through implementation of strategies such as those discussed here, is important to both students and faculty members.

Student Perspective

Many online students indicate instructor social presence is important to them for a number of reasons. First, online students prefer communication and instructional support from their instructor more than their peers (Rucks-Ahidiana et al., 2013). In fact, higher levels of such interactions with the online instructor correlated with improved student performance (Jaggars et al., 2013b).

Second, online students have expectations of the instructor role. Students expect instructors to clearly communicate important information such as policies and assignments, provide engaging materials to motivate learning, make their presence in the course known, and support learning by providing feedback and responses in a timely fashion (Bork & Rucks-Ahidiana, 2013; Jaggars et al., 2013b). Similarly, Mann (2014) found that online students ranked detailed organization and clarity, prompt feedback on

assignments, and prompt response to questions as the top three behaviors an online faculty member can exhibit to build a caring online community.

Third, when instructor social presence is lacking, online students feel as if they have to teach themselves. Jaggars (2014) found that online students missed the direct instruction of a face-to-face environment and may feel that the "teacher is basically not there" (p. 12) if help is needed. This promotes a sense of helplessness, similar to students' feelings of isolation discussed earlier.

Overall, students indicate higher satisfaction with an online course when these expectations are met (Morris, 2011) and this satisfaction correlates with successful online course completion, a theme that is explored in more detail in subsequent sections.

Faculty Member Perspective

Many faculty members who teach online recognize the importance of representing themselves both professionally and personally while physically separated from their students. However, compared with a face-to-face learning environment, online faculty members are challenged to "make themselves heard, known, and felt by the students" (Baran, Correia, & Thompson, 2013, p. 32). This challenge is met in diverse ways.

Faculty members use various strategies and tools to establish and maintain their OISP. For example, strategies might include providing well-organized courses, being available to students and treating them fairly, and striving to create strong connections (Kennedy, Young, & Bruce, 2012). Tools they might use include audio recordings, video recordings, chat sessions, and instructional software such as MyMathLab® and SAM (Skills Assessment Manager) (Rucks-Ahidiana et al., 2013). Faculty members may also share personal information, establish student trust with frequent communication, gather

information about students' profiles, or use social media (Baran et al., 2013). The asynchronous nature of an online course, however, impacts all communication efforts. Demonstrated immediacy behaviors can improve communication clarity between students and the instructor.

Demonstrated Immediacy Behaviors Enhance OISP

Many of the strategies mentioned for creating and maintaining OISP have been successfully implemented to *adequately* create an instructor presence. However, there are known ways to increase students' perceptions of instructor presence. Online faculty members who are able to demonstrate verbal and nonverbal immediacy behaviors have the opportunity to *enhance* their OISP.

Immediacy behaviors (LeFebvre & Allen, 2014; Schutt et al., 2009) is the collective term for verbal and nonverbal behaviors that increase the feeling of immediacy, a perceived physical or psychological closeness (i.e., connection or caring). In a classroom setting, instructors exhibit verbal immediacy behaviors when addressing students by name, using humor, sharing personal examples and experiences, praising students' work, using inclusion verbiage (e.g. "our" class and what "we" are doing), and engaging in conversation (Gorham, 1988). Examples of nonverbal immediacy behaviors would include smiling, gesturing, making eye contact, having a relaxed body position, using various vocal expressions, and moving around the classroom (Richmond et al., 2003). Together, these verbal and nonverbal behaviors indicate faculty members care about students as learners as well as individuals and can be used to heighten OISP.

For example, a furrowed brow combined with a quizzical, empathic tone of voice asking "Is there something I can help you with?" is a combination of verbal and

nonverbal immediacy behaviors that conveys concern to a student more readily than using text alone to deliver that same message in an email or virtual office. Meyers (2009) found that "observable expressions of instructors' care significantly correlate with students' perceptions of faculty members, their academic engagement, their enjoyment of coursework, and even their learning" (p. 208) and concluded "caring is a powerful teaching tool" (p. 209). Caring behaviors occur within both the faculty member's instructional role and humanitarian role when establishing OISP.

In an online faculty member's instructional role, as stated earlier, behaviors such as providing prompt feedback, making course expectations known, writing clear instructions, and being accessible (Mann, 2014; Plante & Asselin, 2014) are ways of letting students know the instructor cares about them as learners. Showing care for students as individuals occurs when online faculty members communicate humanely by being polite, respectful, and using expressions of concern with students (Plante and Asselin, 2014). Each of these caring behavior examples can include some aspect of verbal and/or nonverbal immediacy and are commonly demonstrated via written communication. However, even though "text-based learning environments have been validated as effective spaces for fostering communities of learners" (Pacansky-Brock, 2014, p. 102), text-based communication may not be the most effective way to express immediacy behaviors. Of utmost importance is "the level of hospitableness that students perceive, and the … inclusion and comfort that students experience" (Ambrose, Bridges, DePietro, Lovett, & Norman, 2010, p.176).

Students' perceptions of instructor presence increase when their perceptions of immediacy increase. Accordingly, Kelly, Ponton, and Rovai (2007) found that students

evaluate faculty member immediacy behaviors higher when face-to-face versus online, and Schutt et al. (2009) found that students perceived the online instructor as a real person more when the instructor projected immediacy behaviors, with the highest level of perception occurring when both verbal and nonverbal behaviors were exhibited. Instructors who are able to demonstrate a "warm and inviting communicative demeanor" (Bailie, 2012, p. 2) will have an impact on most students. However, students' needs for immediacy vary. Murphrey et al. (2012) found that online undergraduate students reported a greater preference for immediacy than graduate students. This finding has important implications for the current study, which focused on community college faculty members who teach undergraduate students only.

Just as students' needs for immediacy vary, faculty members' awareness of demonstrating immediacy may also vary. Although online faculty members recognize a lack of immediacy and visual cues from their students when communicating asynchronously (e.g., email or discussion boards), this indicates an awareness of recognizing, not necessarily exhibiting, immediacy behaviors (Huang & Hsiao, 2012). Experienced online instructors report using immediacy behaviors such as self-disclosure and anecdotes (i.e., sharing personal examples and experiences), conversational style topics in the discussion board, timing (i.e., email response time and frequency of participation in online discussions), and referring to students by their first names (York & Richardson, 2012). Unfortunately, not all online instructors are experienced in that medium. Many are new to the online environment or have limited experience designing and facilitating this type of class. Online faculty members may not know how to proficiently project immediacy behaviors, so developing a better understanding would

enable them to better incorporate these behaviors into online instruction and ultimately impact their instructor presence as well as students' course satisfaction (Schutt et al., 2009; York & Richardson, 2012).

As described in this section, a major component of OISP is the faculty member's ability to convey their unique personality to students. This is especially challenging for online faculty members who never meet their students face-to-face. Although immediacy behaviors, verbal more so than nonverbal, can and do occur within a text-based learning environment, two major communication components, tone and facial expression/body language, are limited here (Paul & Cochran, 2013). Current technologies provide online faculty members with the means to address these limitations and thus enhance their OISP.

Digital Content to Convey Immediacy and Enhance OISP

There is a strong correlation between online students' perceptions of instructor immediacy behaviors and their perceptions of instructor presence (Schutt et al., 2009). In other words, an instructor can enhance his/her presence by increasing students' perceptions of immediacy. As mentioned previously, OISP can be adequately established in a text-based learning environment. However, as technology continues to impact personal communication trends, there is a need to consider if text is "still the optimal medium for communication in an online class when reducing the isolation and improving personalization and connectedness is our goal" (Pacansky-Brock, 2014, p. 100).

It is evident that while some of the immediacy behaviors described in the previous section are replicable in the text-based online learning environment where there is truly no physical closeness, other immediacy behaviors are not. Verbal immediacy behaviors, in particular, are replicable through text (Ice et al., 2007) because the instructor can write

instead of speak, using emoticons (Bailie, 2012) to depict humor and other expressions. However, text is not as energetic and spontaneous as a voice, and it does not easily deliver feeling or tone. As Boettcher and Conrad (2010) state, "one's voice carries more personality and energy than text alone" (p. 163).

Nonverbal behaviors, however, are not so easily replicable with text. Static images and other graphics are a possible avenue to convey nonverbal behavior, but video is capable of capturing it best. Video technology, with its ability to capture image and sound, has been described as "the superior technology to deliver the online teaching persona" (Kelly, 2010, p. 1). Intentionally captured immediacy behaviors enable online students to "see and hear an instructor who is excited, enthusiastic, caring, and dedicated to his or her students, the subject, and the course" (Sull, 2010, p. 6), thereby enhancing OISP. Yet, even an unintentionally captured aspect of the instructor's life, such as family photographs or artwork on an office wall, helps students see their instructor as more human.

Examples of Digital Content Creation

There are many examples of current digital content use in higher education. Recall the previous definition of digital content: *any online course content created using asynchronous video technologies. The content may or may not include the instructor demonstrating verbal or nonverbal immediacy behaviors.* Therefore, for the purpose of the current study, digital content does not include video created by someone other than the instructor, such as materials available on YouTube™ or from textbook publishers.

Purposes. Kay (2012) conducted a comprehensive literature review concerning instructional use of video created using asynchronous technologies. Fifty-three peer-

reviewed articles were studied and four primary video categories were identified: lecture-based, enhanced, supplementary, and worked examples. Lecture-based videos are used to deliver course content and are intended to replicate a face-to-face class lecture. Enhanced videos add audio to video footage of a PowerPoint slide presentation. Supplementary videos are used to augment course content and may include demonstrations, additional material to aid student understanding, or summaries of course material. Worked examples provide explanations of how to work through specific problems related to course discipline, and are usually used in areas of math or science. Although the majority of literature Kay (2012) reviewed focused on video use in the face-to-face learning environment, videos serve comparable purposes in online learning environments.

Rucks-Ahidiana et al. (2013) found similar purposes for digital content in community college online courses. Two broad purposes for video were identified: content delivery and communication/feedback. Content delivery is described as providing and/or reinforcing course content, basically a combination of all four instructional video categories identified by Kay (2012). Communication and feedback is described as a means of allowing the instructor and students to asynchronously communicate regarding topics such as grades, feedback, or general questions and answers. Researchers are recognizing an added benefit when using video for online content delivery and communication/feedback: it affords faculty members the opportunity to convey immediacy behaviors and thus increase students' perceptions of OISP.

Studies regarding digital content and OISP. In accordance with the video purposes identified by Rucks-Ahidiana et al. (2013), Griffiths and Graham (2009) studied one online instructor's use of digital content with results indicating highly positive

student perceptions of instructor immediacy and social presence. These results prompted additional research at the same institution, with faculty members using digital content in a blended learning environment (Borup et al., 2011) and in online learning environments (Borup et al., 2012) for similar purposes and finding similar results; the use of digital content for communication/feedback and content delivery enhanced students' perceptions of instructor social presence.

Murphrey et al. (2012) studied the use of Jing™ as an instructional tool in multiple, university-level, fully and partially online agriculture education classes. In some of those classes, only the instructor used the tool to create digital content for students to view, while in other classes both students and instructors were creating videos. Overall, students indicated a strong preference for immediacy and social presence related to the use of this asynchronous video technology as a communication tool. However, the study did not differentiate if the immediacy and social presence was measured student-student, student-instructor, or both.

Online student interviews conducted by Hibbert (2014) revealed that instructors who shared humor/wit and examples of their professional experience in course videos were particularly engaging to students. The use of video added a human element to the reading material and a personal context to the subject matter. Ultimately, students reported the audio/visual elements of video were useful in learning course material and that video provided an increased sense of OISP.

In the Borup et al. (2012) study mentioned previously, instructor-created video (digital content) was used to mediate university-level online course discussion activities being completed via blog. The results showed the three experienced instructors involved

in the study exhibited verbal and nonverbal immediacy behaviors such as addressing students by name, using facial expressions, and inviting students to visit in person if they needed additional help. The results also showed the majority of students stated their perceptions of OISP were substantially impacted by video communication. This form of communication helped them develop an emotional connection with their instructor because seeing the instructor in a video was similar to being face-to-face in a classroom, and witnessing greater emotional expression helped them gain a perception of the instructor's personality. For example, one student concluded the instructor was a happy and energetic person because of the facial expressions and movement displayed via video. However, students' interpretations are not universal, and these results may be skewed because two of the three instructors involved in this study actually met face-to-face with students during the first class session. In many online courses, students never have an opportunity to meet their instructor in person to form a first impression.

In an earlier study, Borup et al. (2011) looked at the use of various asynchronous video communication tools as a means of improving instructor immediacy and social presence in a university-level, blended learning environment with a minimum amount of face-to-face instruction. The results were positive, with students commenting that digital content helped them get to know the instructor better and emphasized the instructor's humanity more than if they had used strictly text-based communication methods.

Schutt et al. (2009) studied the effects of intentionally demonstrated instructor immediacy behaviors on students' perceptions of immediacy and instructor presence in an online setting. The results suggest that although audio/video tools *enable* faculty members to project immediacy behaviors, students' perceptions of OISP will truly

depend on *how well* the faculty member is able to project immediacy behaviors. In other words, if a faculty member is knowledgeable about verbal/nonverbal immediacy behaviors and how to convey them, students will perceive a high presence regardless of whether the behaviors are conveyed by audio alone or a combination of audio/video. Similarly, students' perceptions of immediacy and presence will not be impacted if a faculty member fails to demonstrate immediacy behaviors while using either of these communication mediums. Online faculty members need an awareness of immediacy behaviors and how to demonstrate them.

All of the studies discussed in this section were conducted at university-level institutions. Fewer studies have been conducted at the community college level. Rucks-Ahidiana et al. (2013) did review the use of interactive tools, including audio/video, in community college online courses and found a majority of the 23 faculty members polled were creating digital content to provide course subject matter, reinforce course subject matter, and provide a communication medium between students and instructor as a means of answering questions and/or giving feedback and grades. Again it was found, online students' perceptions of OISP were positively impacted by the use of digital content and the student-instructor interactions were deemed most valuable.

Increased OISP not guaranteed. A final consideration is the use of digital content does not guarantee students will perceive increased OISP. As stated earlier, Schutt et al. (2009) found that an instructor who fails to demonstrate immediacy behaviors will not increase students' perceptions of immediacy, regardless of the communication tools used. Additionally, some students may not utilize digital content because they encounter technical difficulties while using it or feel that text

communication is sufficient as well as quicker to skim (Borup et al., 2011, 2013; Hibbert, 2014).

Online faculty members need to consider the purpose of digital content in course design. Digital content is not intended to replace all text-based communication, but to enhance it. In other words, it "may be beneficial to instructors who wish to *improve* [emphasis added] the social presence in their courses" (Borup et al., 2012, p. 33). Kelly (2007) states video should be used to scaffold course assignments rather than independent elements of the course. For example, providing a video review of an assignment can help clarify written instructions for that same activity (Rucks-Ahidiana et al., 2013). Further examples include a personal video welcoming each student to the online class to help establish a connection with the instructor (Butler & Evans, 2014; Kelly, 2012), or a guided course tour video to help students understand how to navigate the course, and additionally allow the instructor to share course design details and course expectations (Butler & Evans, 2014). A combination of audio, visual, and text-based communication is helpful for students (Murphrey et al., 2012).

Although video, targeting auditory and visual channels, allows faculty members to create multisensory learning environments (Hibbert, 2014), Drouin, Hile, Vartanian, and Webb (2013) found that students rate visual material (e.g., PowerPoint slideshow) with audio just as highly as video with audio. Essentially, there is no guarantee that video technologies will "necessarily preserve or enhance the human attributes and interactions that help make learning experiences humane and meaningful" (Schutt et al., 2009, p. 146). Conveying this humanness therefore depends on the knowledge and skill that each

online faculty member possesses, supporting a need for professional development opportunities.

A Need for Professional Development

Even with a need for more and more online instructors due to rapidly increasing enrollment numbers in online education (Allen & Seaman, 2013), faculty members still do not always have the necessary skills to build and deliver an online course. Resources such as Boettcher and Conrad's (2010) 'survival guide' are created to support "faculty with little support or access to support or information about the unique characteristics of online pedagogy" (p. xxv). Furthermore, faculty members are often tasked with moving an on-campus course to the online environment with little advance notice, with the expectation that faculty members will seek out campus technology centers and any other available resources on their own and "learn to use the online tools" (p. 4).

In order to teach effectively online, faculty members need basic computer proficiency, the ability to address students' technology-related questions, an awareness of institutional resources available to online students, and an understanding of how to establish and maintain their OISP (Bork & Rucks-Ahidiana, 2013). Faculty members need guidance in course design and development, pedagogical practices, selecting effective technology tools and platforms, as well as access to support from their peers (Baran & Correia, 2014). Yet "a large percentage of instructors are not receiving any training in pedagogy or technology prior to instructing their first online course" (Ray, 2009, p. 1). Colleges need to ensure that online faculty members have the opportunity to learn how to effectively teach online and receive the support needed to "maximize the effectiveness of their online courses" (Jaggars, Edgecombe, & Stacey, 2013a, p. 5).

Although 97% of community colleges report they provide professional development opportunities for faculty members to learn how to teach effectively online, 18% of these colleges do not require faculty members to complete any professional development prior to teaching online and another 26% require less than six hours (Lokken & Mullins, 2014). For the most part, faculty members can choose to participate in professional development activities or not (Bates & Sangrà, 2011). In fact, the number one challenge faced by administrators at these institutions is "engaging faculty in developing online pedagogy" (Lokken & Mullins, 2014, p. 25), yet many faculty members indicate it is difficult to find the time to attend available professional development activities (Baran & Correia, 2014; Bork & Rucks-Ahidiana, 2013). At the community college level, where teaching loads are higher, there may be no convenient time to attend professional development sessions during the regular workday.

Beyond designing and delivering the online course, creating digital content becomes an additional task using additional tools that requires additional time and knowledge. Recognizing the importance of professional development opportunities for online faculty members can help address the issue of successful course completion (Lokken & Mullins, 2014).

OISP Contributes Toward Successful Course Completion

"Successful online education is critical to success of the institution, teaching faculty, and careers of the students" (Paul & Cochran, 2013, p. 60). This sentiment is no longer primarily linked to an institution's reputation; it is now linked to funding. With recent changes in higher education funding models (Anderson, 2013), failing to help students succeed in their online learning endeavors now has a monetary impact, thus

providing an additional impetus for institutions to investigate strategies that will impact student success. Using digital content to enhance OISP may be one option. As stated in the NMC Horizon Report (2014), the ability to capture voice along with gestures such as eye contact and body language can be used to create an "unspoken connection with learners" (p. 18) which may positively impact student engagement and ultimately successful course completion.

Postsecondary enrollment in online courses not only continues to increase, it is increasing rapidly (Allen & Seaman, 2013). "From 2000 to 2008, the percentage of undergraduates enrolled in at least one distance education class expanded from 8 percent to 20 percent" (Radford, 2011, p. 3) with participation most common among students attending public 2-year colleges. Accordingly, the National Center for Education Statistics (Ginder, 2014) reports 17.3% of students at public 2-year institutions are enrolled in some online courses compared with 15.1% at 4-year institutions. Students enrolled exclusively online comprise 9.8% of the enrollment at 2-year schools compared to 7.1% at 4-year schools. At community colleges in particular, Jaggars et al. (2013a) report that almost half the students enroll in at least one distance education course while few enroll exclusively online.

More students than ever may be enrolling in online courses, but many of them are not successfully completing these courses. Successful online course completion is a growing concern among academic leaders (Allen & Seaman, 2013; Lokken & Mullins, 2014). Although many students perform poorly or drop out of an online course due to personal reasons and time constraints (Aragon & Johnson, 2008; Diaz, 2002; Jaggars et al., 2013a; Levitz & Noel, 2000), another major factor impacting successful online course

completion is “course design or lack of communication [with instructors]” (Aragon & Johnson, 2008, p. 155). Students’ expectations of successful course completion are related to instructor guidance and facilitation: clear guidelines, easy-to-understand course structure, prompting discussion by asking questions, timely responses and feedback on assignments, and fostering group cohesion (Morris, 2011; Shea et al., 2010; Yuan & Kim, 2014). Notably, these expectations are the same caring behaviors associated with the dual role of an online instructor discussed earlier in this chapter in regard to demonstrating immediacy behaviors.

If online education is going to be an optimal learning environment for students, faculty members need the support that will help them succeed (Jaggars et al., 2013a). A portion of this support comes in the form of professional development, as discussed previously. Another aspect of supporting faculty members is recognizing the efforts involved in designing and delivering an online course, which will be explored in further detail in a subsequent section. Equally important is raising online faculty members’ awareness of recent changes in funding models.

Funding Models Underscore Completion

As previously stated, academic leaders are concerned about online students’ successful course completion (Allen & Seaman, 2013) and changes in performance funding (PF) may contribute to the alarm. “Historically, many colleges have received state funding based on how many full-time equivalent students are enrolled at the beginning of the semester. This model provides incentives for colleges to enroll students” (National Conference of State Legislatures, 2015, “Education/Performance-Based

Funding", para. 1). In contrast, performance funding (PF) programs were implemented to address student outcomes.

High enrollment numbers do not measure success in education, and some level of PF has been adopted by more than 75% of the states as a means of improving student outcomes at their public postsecondary institutions (Community College Research Center, 2015; Sousa, 2015). Initial PF 1.0 programs awarded bonus money on top of regular state funding to higher education institutions based on student outcome indicators related to retention, completion, and transfer, while recent PF 2.0 programs consider the performance aspect an integral part of base funding (Dougherty & Reddy, 2013). In other words, the amount of regular state funding these institutions now receive may partially depends on students' successful course completion.

Nationwide, 32 states have already adopted, and five states are in the process of adopting, performance indicator based funding formulas (NCSL, 2015). Although the actual funding criteria varies by state, some will have nearly all base funding tied to credit hours completed (Anderson, 2013; NCSL, 2015; N.D.C.C., 2013). These funding cuts compel colleges to take additional measures toward improving student outcomes, including successful online completion rates (Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). As described in previous sections, one such measure may be creating digital content to enhance OISP as a means of increasing students' educational experiences and perceived level of course satisfaction.

Student Satisfaction Contributes Toward Successful Course Completion

It is important to recognize the contribution student satisfaction makes toward successful course completion. Jaggars and Xu (2013) found that students expressed

satisfaction with increased interpersonal interaction with the online instructor (e.g., providing clear guidelines, timely responses, and asking for student feedback) and indicated the instructor cared about their course performance. These interactions had a significant positive impact on student grades. Joo, Lim, and Kim (2011) found similar results; learner satisfaction had a significant effect on course completion. Arbaugh and Benbunan-Fich (2007) also found that student-instructor interactions were significantly associated with an increase in perceived learning although no comparisons were made with actual course grades. Truly, the interaction between students and faculty members is the most important at any institution (Paul & Cochran, 2013). The resulting impact on students' perceptions of instructor immediacy and social presence can yield increased effort, course involvement, and course satisfaction (Arbaugh, 2010; LeFebvre & Allen, 2014). Instructors who create digital content can impact student satisfaction.

When online instructors supplement their text-based courses with digital content, the results can positively impact students' perceptions of course satisfaction as well as their learning outcomes (Hibbert, 2014; Schutt et al., 2009; Wei et al., 2012). Students prefer multimedia resources created by their instructor because it provides a personal touch in an online course and gives the sense of active teaching (Bork & Rucks-Ahidiana, 2013). Also, students perceive an online instructor as more 'real' or as an 'actual person' when they can hear them, see them, and develop a better understanding of their personality through personalized communication (Borup et al., 2011, 2012). Murphrey et al. (2012) found that students indicated a strong preference for audio/video communication with the instructor and classmates while findings from Ice et al. (2007) revealed higher student satisfaction with audio versus text-based feedback. Faculty

members have also reported improved retention rates and student satisfaction as a result of incorporating digital content into online learning (Kelly, 2007).

It is important to clarify that digital content is not a magic bullet to make every online student successful, yet even one additional successful student is an improvement worth realizing. In the aforementioned studies, some online students did not indicate a need for instructor social presence in order to perceive course satisfaction. Similarly, Giesbers et al. (2014) found that online courses conducted using synchronous technologies did not increase students' course satisfaction or improve their performance, despite the fact that this type of learning environment logically provides OISP that is most similar to a face-to-face learning environment.

Because the literature supports online students' increased perceptions of course satisfaction when digital content is used, it is important to further investigate community college faculty members' perceptions of enhanced OISP as a contributing factor toward online student's successful course completion regardless of whether they create digital content or not. Likely, if faculty members do not believe digital content can contribute toward student success they will not feel compelled to include it as an online course supplement. Also impacting the decision to include digital content is perceived recognition from their institution for the required effort.

Perceived Institutional Recognition for Creating Digital Content

There are confounding statistics regarding the use of video technologies in higher education. Albeit an older study, according to the National Center for Education Statistics (Parsad & Lewis, 2008) 21% of public, two-year colleges reported using one-way prerecorded video to deliver online instruction. According to Allen et al. (2012),

approximately 34% of all higher education faculty members who teach online courses create digital materials/open educational resources. These dissimilar percentages indicate a need to determine what percentage of community college faculty members are using video technologies to create digital content in online courses. The number of faculty members who are or are not creating digital content may ultimately be impacted by perceived institutional recognition of the required effort.

For the purpose of this study, digital content has been described as a supplement to online courses. Therefore, a discussion regarding perceived institutional recognition for creating digital content needs to include faculty members' perceptions of online teaching in general. Faculty members believe that teaching online courses takes more time than face-to-face courses (Anderson et al., 2001; Huang & Hsiao, 2012; Johnston, 2011; Seaman, 2009; Sugar et al., 2007), in part because of the reading and typing associated with asynchronous, text-based communication and also because of the initial design and development time. However, extra time is not the only concern. Faculty members cite "inadequate compensation for perceived greater work than for traditionally delivered courses" (Shea, 2007, p. 73) as the top demotivator. A lack of professional development opportunities and administrative support are also concerns related to institutional recognition of the efforts faculty members devote to creating digital content.

As evidenced earlier, the number of faculty members inadequately prepared to teach an online course is a significant concern. Similar inadequacies related to creating supplemental digital content may exist as well. Ray (2009) found that institution-provided, formal training in the area of technology was provided to a majority (70.9%) of faculty members prior to teaching online while a little more than half (55.8%) received

formal pedagogical training. Although faculty members who receive some professional development may not feel they have mastered the nuances of teaching online (Rucks-Ahidiana et al., 2013), even this limited amount has a "positive effect on the instructor's perceived preparation to teach online" (Ray, 2009, p. 9).

Also stated earlier, online faculty members may find it difficult to add professional development to their busy schedules, yet they value these learning opportunities. Faculty members also value guidance resources such as mentors, colleagues, and technical support to share examples, best practices, and help troubleshoot problems that may arise while preparing and teaching an online course (Regan et al., 2014). In addition to technology support and teaching support, online faculty members also need "support related to the transformation of … [their] *content* for the online environment" (Baran & Correia, 2014, p. 98). In other words, online faculty members need support designing, developing, and delivering their online courses. However, faculty members ranked institutional support services (e.g., development support, student support, intellectual property policies) as below average and gave "the lowest ranking to their institution's incentives for developing and for delivering online courses" (Seaman, 2009, p. 8). Although specific incentives were not identified in this study, earning additional income was not a strong motivator for faculty members and therefore each institution needs to determine appropriate incentives. Possible incentives may include the professional development opportunities and support procedures discussed here.

Recognition for creating digital content may also come in the form of semi-formal professional development sessions, such as a "lunch and learn". Just as students can feel isolated in an online learning environment, faculty members can experience similar

feelings of isolation if they lack opportunities to share ideas, advice, and vent frustrations (Baran & Correia, 2014). Learning new tips, tricks, and techniques, along with listening to other faculty members' ideas and concerns regarding online teaching and creating digital content, provides an opportunity for faculty members to mutually support each other.

Online faculty members need support from administration as well as from peers. According to Allen et al. (2012), slightly more faculty members disagree than agree that their institution has a fair system in place to reward their contributions to digital pedagogy. In other words, in regard to creating digital course materials, "faculty are not sure their work is appreciated" (Lorenzetti, 2012, p. 5). Additionally, many higher education institutions do not recognize innovative technology use in a faculty member's performance review (Bates & Sangrà, 2011). "Ensuring that [online] instructors' … efforts count in the job evaluation process is clearly the most important … incentive leadership can provide" (Waterhouse, 2005, p. 22). On the other hand, administrators believe their institutions do recognize faculty members' efforts toward creating digital materials (Lorenzetti, 2012).

Administration can recognize faculty members' efforts with direct financial payment as well as nonfinancial incentives such as promoting online education as a valued part of the organization's culture, communicating policies regarding intellectual property, and considering digital content use in promotion, tenure, and merit (Lokken & Mullins, 2014; McCarthy, 2009). Other ways to recognize faculty members' efforts might include evaluating faculty members' professional development needs before, during, and after online course development and delivery as well as providing and encouraging

collegial opportunities for online faculty members to share best practices (Baran & Correia, 2014; Jaggars et al., 2013a). Additionally, administration should regularly review incentives to ensure they are satisfying faculty members' needs for recognition.

Overall, "faculty consistently rate the additional effort to develop and teach online courses as the greatest barrier to engaging in online learning" (Seaman, 2009, p. 7). Creating supplemental digital content also requires additional effort. Therefore, regardless of whether or not faculty members are creating digital content, we need to know if they perceive recognition for the extra effort—time, development, and acquisition of new knowledge—involved in creating digital content. Ultimately, faculty members who receive recognition for the "extra effort and commitment to online education … are more confident and motivated to teach online and create high-quality courses" (Baran & Correia, 2014, p. 100). Failure to recognize the extra effort invested by community college faculty members who already create digital content for online course use may actually discourage other online faculty members from doing so.

Additional concerns regarding the extra effort associated with creating digital content include faculty members' expectations of their role in the online learning environment, familiarity with immediacy behaviors, and lack of experience with teaching online. "Even though online courses are delivered through technology, not all instructors expected themselves to use technological tools in order to produce more engaging and active pedagogy. In fact, many instructors exclusively delivered content through textbooks or written materials" (Bork & Rucks-Ahidiana, 2013). Finally, all of the concerns discussed in this section may be especially cumbersome for faculty members who are teaching online for the first time. A majority of faculty members perceive a

challenge in replicating established face-to-face activities in the online environment, figuring out how to facilitate learning in this virtual realm, and possibly needing new technology skills (Ray, 2009; Moon, Michelich, & McKinnon, 2005; Sugar et al., 2007).

Summary

In the best-selling book, *The Alchemist*, we read "when we strive to become better than we are, everything around us becomes better, too" (Coelho, 1993, p. 150). The strides online faculty members take to improve their OISP can have a crucial impact on making student and institutional success better; therefore it is important to ascertain community college faculty members' perceptions of creating digital content to enhance OISP. The literature presented in this chapter, separated into five main sections, discussed the significance of this OISP and its impact on student success and faculty members' workload.

The first section discussed the importance of establishing and maintaining a strong OISP. The next section demonstrated the impact immediacy behaviors can have in regard to enhancing OISP. The third section presented literature that discussed the use of video technologies as an effective technique for demonstrating immediacy behaviors in the online learning environment. This section raised the first two research questions:

1. What percent of community college faculty members are using video technologies to create digital content in online courses, how often are they audible or visible in their digital content, and what are their demographics?

2. What are community college faculty members' perceptions of using video technologies to create digital content in online courses as a means to intentionally convey verbal and nonverbal immediacy behaviors?

The fourth section synthesized research regarding how a strong OISP has been shown to contribute toward successful course completion, which continues to be an issue at community colleges, and raised the third research question:

3. What are community college faculty members' perceptions of enhanced online instructor social presence as a contributing factor toward online students' successful course completion?

The fifth and final section detailed the importance of considering institutional recognition associated with the effort involved in creating digital content. This final section also raised the fourth research question:

4. What are community college faculty members' perceptions of the recognition they receive from their institution for using video technologies to create digital content for use in their online courses?

The methods, research design, and procedures that guided this study are discussed in the next chapter.

CHAPTER III

METHODOLOGY

With this study, the researcher sought to ascertain community college faculty members' perceptions of creating digital content to enhance online instructor social presence (OISP) specifically related to verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort required to create digital content. In particular, this study used quantitative methods to address the following research questions:

1. What percent of community college faculty members are using video technologies to create digital content in online courses, how often are they audible or visible in their digital content, and what are their demographics?
2. What are community college faculty members' perceptions of using video technologies to create digital content in online courses as a means to intentionally convey verbal and nonverbal immediacy behaviors?
3. What are community college faculty members' perceptions of enhanced online instructor social presence as a contributing factor toward online students' successful course completion?
4. What are community college faculty members' perceptions of the recognition they receive from their institution for using video technologies to create digital content for use in their online courses?

This chapter describes the current study in terms of the participants, procedures, measures, reliability and validity, and methods for data analysis.

Research Setting

This study was conducted within five community colleges that are part of a U.S. Midwestern public university system. In addition to the five community colleges, this statewide system is comprised of four regional universities, two research universities, and employs approximately 4,000 faculty members. Community college faculty members teach general education courses as a precursor to university transfer as well as vocational-technical program courses to prepare students for the job market. Transfer students may earn an associate in arts or an associate in science degree, while students completing technical programs are awarded a program certificate, program diploma, or an associate in applied science degree.

The institutions within this system have consistent online course offerings yet lack a unified delivery platform. Each institution has created and is delivering a multitude of general education and/or technical courses, as evidenced by the number of online faculty members identified in the next section, but they are using various online learning environments. The university system has considered mandating and supporting a unified learning management system for the last decade, but for now these universities and community colleges are still free to choose their own platform. As per their respective public websites, three of the five community colleges use Pearson LearningStudio, the other two use Moodle, and the universities within this system use either Moodle or Blackboard. Tegrity is the system sponsored video recording software, although it is

known that faculty members do use other video recording products such as Camtasia™, Jing™, and Articulate™.

Participants

This study used a sampling frame of approximately 409 full-time and adjunct faculty members who teach online courses at the five Midwestern community colleges described above. Participants were identified by reviewing each community college's online course schedules for the 2014-2015 fall, spring, and summer academic semesters, which were available on their respective public websites. Faculty members' email addresses were obtained from the semester course listing, if available, or by searching each institution's respective public website to find contact information for the instructor name listed for each course.

In total, approximately 400 surveys were distributed because six of the email addresses turned out to be undeliverable and at least three faculty members indicated via automatic response that they were not available until fall semester. Additionally, an unknown proportion of these emails may have been blocked by spam filters or delivered to addresses that were still receiving mail but no longer actively being used by the individual being addressed (e.g., moved or retired). Ultimately, there were 101 initial responses to the survey, although only 97 respondents consented to participate and two of those responses were completely blank, yielding a participation count of 95 (initial response rate of 23.8%). Refer to Table 1 for a breakdown of the number of identified participants and initial response rates from each institution.

Table 1. Online Faculty Member Count and Response Rates per Community College.

Community College Pseudonym	Online Faculty Count	Initial Response Count	Initial Response Rate
CC1	180	50	27.8%
CC2	52	16	11.1%
CC3	65	12	34.0%
CC4	58	11	18.5%
CC5	54	6	19.0%
Total	409	95	

As described later in this chapter, preliminary analysis resulted in an additional four responses being rejected because none of the subscale questions had been completed. Also described later as part of preliminary analysis is the categorization of the vast array of teaching disciplines into two groups: science, technology, engineering, and math (STEM) and non-STEM related. Ultimately, the final sample consisted of predominantly White/Caucasian faculty members under 40 years of age with less than 10 years of service in higher education teaching in a variety of disciplines.

Additionally, there were twice as many female participants as males, slightly more full-time than adjunct faculty members, a fairly even number of STEM and non-STEM disciplines, and almost half of the participants were from one community college. For descriptive purposes only, the data for age and years of service (collected as open-ended responses) were each grouped into three categories that maintained the natural order of the data, included the full range of data values entered by faculty members, and yet ensured fairly equal intervals. See Table 2 for a complete listing of participants' demographic information.

Table 2. Demographic Information for Online Faculty Members (n = 91).

Demographic Information	Valid *n*	Valid %
Gender	91	
Male	29	31.9
Female	62	68.1
Age	84	
26 - 39	34	37.4
40 - 49	25	27.5
50 - 69	25	27.5
Ethnicity	91	
White/Caucasian	84	98.9
African American/Black	0	0.0
American Indian	0	0.0
Asian American/Asian	0	0.0
Mexican American/Chicano	0	0.0
Puerto Rican American	0	0.0
Other Latino	0	0.0
Other	1	1.1
Years of Service in higher education	78	
0 – 9	34	37.4
10 – 19	28	30.8
20+	16	17.6
Employment status	91	
Full-time faculty	54	59.3
Adjunct faculty	37	40.7
Teaching discipline	86	
STEM	41	45.1
non-STEM	45	49.5
Primary community college employer	91	
CC1	47	51.6
CC2	15	16.5
CC3	12	13.2
CC4	11	12.1
CC5	6	6.6

Procedures

The procedures for this study consisted of creating a survey instrument and distributing it to a sampling frame of community college online faculty members employed by a Midwestern U.S. public university system. Because the researcher was a student at one of the research universities within this system, permission to conduct the research was granted by that university's Institutional Review Board (IRB). However, as a professional courtesy, the researcher contacted the IRB chairperson at the only

community college that had an IRB, and the office of the dean of academics/instruction at each of the other four community colleges to request permission to contact online faculty members via email in order to distribute the survey.

An electronic version of the survey instrument was created using the Qualtrics™ online survey software. A link to the survey was distributed by email to all identified online faculty members during June of the summer 2015 semester, approximately one week after the summer session began. The decision to conduct the study during summer session was based on identification of 188 faculty members who were scheduled to teach an online summer course, which was determined an adequate number of participants for the study if no other faculty members participated.

The survey included informed consent information along with the introductory overview and explanations, therefore faculty members gave their electronic consent to participate in the study. Faculty members were instructed to complete the survey within three weeks if they wished to voluntarily participate, with the incentive that upon completion, one randomly-selected participant from each of the community colleges would receive a $25 Amazon.com gift card. Weekly reminder emails were sent to encourage participation. Although the survey results were reported anonymously in aggregate, anyone who wanted to be included in the random prize drawing needed to include their name and contact information. The final question on the survey was directly linked to a separate survey created solely to collect this personal information, which was stored separately from the individual questionnaire responses as a measure of maintaining anonymity.

At the end of the data collection period, the researcher closed both online surveys and downloaded the data from Qualtrics™ into two Microsoft Excel spreadsheets. The personal contact information for 79 faculty members, listed in the order of survey completion, was then sorted by community college and a random number was generated for each of the five institutions based on the number of faculty members in the list. Each of the five random numbers was matched to the corresponding name in each community college list and an email was sent to those five faculty members with a link to the $25 gift card redemption site. Participation incentives cost the researcher a total of $125.

Measures

The survey instrument used for this study was developed by the researcher with the goal of examining community college online faculty members' digital content creation and their perceptions of digital content to enhance OISP. Therefore, the instrument was a combination of the following: independent variables (demographics and digital content creation) used to describe the sample and create analysis groups, dependent variables consisting of select questions adapted from previously validated immediacy behavior scales, and specific questions designed by the researcher to measure perceptions of the successful course completion and institutional recognition aspects of creating digital content. The 36 item survey described below includes source information for previously established measures, analysis of the newly developed scales, and reliability coefficients for all scales. The survey is presented in Appendix A in its entirety.

Demographics. Participants were asked seven demographic questions including gender, age, ethnicity, years of service in higher education, employment status, primary

teaching discipline, and primary community college employer with an accompanying text area to identify additional community college employers.

Establishing subscale focus. Participants were asked to focus on one recently taught online course, ideally a course with created digital content. Next, they were provided with a definition of "created digital content" (i.e., any recorded video that you created for use in the *online* course that you taught. It does not include videos created by someone else that you used in this course), a definition of "online course" (i.e., a course where most or all of the content is delivered online. Typically have no face-to-face meetings), a definition of "successful course completion" (i.e., the act of a student earning a passing grade in a single, credit-hour based online course), and asked to rate the extent to which they agree to each subscale's statements on a 6-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Digital content creation. The survey included four questions to address the level of digital content creation, how often digital content is used for specific purpose(s), and the frequency that voice versus face/body/gestures are captured. Focusing on the one online course they had recently taught, online faculty members were asked to indicate if they *do*, do not but *would like to*, or *do not* create digital content using asynchronous video recording tools including, but not limited to, Tegrity™, Camtasia™, or Jing™. Next, using Kay's (2012) description of common purposes for video as a minimal guideline, faculty members were asked to indicate how often their digital content in this course *is/would be* used to (1) generate/introduce discussion topics, (2) show worked examples, (3) replicate an on-campus lecture, (4) demonstrate a technique/procedure/process, (5) provide feedback to students, or (6) for other purposes.

The last option (6) also provided an accompanying text area to identify specific other purposes. Finally, faculty members were asked to indicate how often they *are/would like to be* audible (i.e., record their voice) and visible (i.e., record their face and/or body) in the digital content for this course.

Digital content to enhance OISP. A second group of constructs was created to gather community college faculty members' perceptions of creating digital content to enhance OISP. With faculty members still focusing on one online course they had recently taught, constructs assessed perceptions of intentional demonstration of verbal and nonverbal immediacy behaviors, enhanced OISP as a contributing factor toward students' successful course completion, and perceived recognition from their institution for the effort required to create digital content. There were six questionnaire items designed to address each of the four constructs, along with an additional question designed to capture the self-reported percentage of students that had successfully completed the particular online course faculty members had been asked to focus on.

Verbal immediacy. The six intentional demonstration of verbal immediacy items were based on items from Gorham's (1988) scale that can be commonly used by online instructors to address the class as a whole instead of individually. Questions 1 through 6 on the survey dealt with (q. 1) intentionally sharing personal examples, (q. 2) referring to the class as "ours", (q. 3) inviting students to meet if they have questions, (q. 4) using humor, (q. 5) praising students, and (q. 6) expressing emotion. Items such as calling on students, encouraging them to talk/respond, or initiating conversations outside of class were not selected. As will be discussed in the preliminary analyses section, the third

question was ultimately removed due to severe skewness and kurtosis. The Cronbach's alpha value for the five items used in the subscale was .79.

Nonverbal immediacy. The six intentional demonstration of nonverbal immediacy items were based on items from Richmond et al.'s (2003) scale that would be easy for online instructors to emulate and students to detect in created digital content. Questions 7 through 12 address (q. 7) intentionally smiling, (q. 8) looking directly toward the camera, (q. 9) using hand/arm gestures, (q. 10) appearing animated, (q. 11) having a lot of vocal variety, and (q. 12) having a relaxed body position. Items not selected referred to leaning, touching, or moving toward people. This six item subscale had a Cronbach's alpha value of .95.

Successful course completion. The six items regarding perceptions of enhanced OISP as a contributing factor toward students' successful course completion were independently developed for this study as no existing scales were found in this area. Accordingly, the term "create(d)" was intentionally used in every question in order to emphasize and clarify the specific type of digital content being addressed. The scale heading specified "In order to contribute toward my online students' successful course completion …" and questions 13 through 18 pertained to (q. 13) using created digital content to intentionally convey online instructor personality, (q. 14) the importance of the online instructor being visible and/or audible in created digital content, (q. 15) intentionally using created digital content to help students perceive them as a real person, (q. 16) intentionally using created digital content to emulate face-to-face communication, (q. 17) intentionally using created digital content to help students get to know them better, and (q. 18) the decreased risk of students dropping out when they perceive the

online instructor as a real person through created digital content. As will be discussed in the preliminary analyses section, the first question in this subscale was ultimately excluded as a result of principal component analysis. The Cronbach's alpha value for the five items in this subscale was .89.

A final question in this area, independent of the subscale yet related to it, asked the faculty member to (q. 19) indicate the percentage of students that had successfully completed the online course they had been asked to focus on. This data value (0 to 100%) was collected using the draggable slider bar graphic available in Qualtrics™.

Institutional Recognition. The six items regarding perceived recognition from their institution for the effort required to create digital content were also independently developed for this study as no existing scales were found in this area. Questions 20 through 25 refer to (q. 20) valuing the effort, (q. 21) adequately rewarding the effort, (q.22) providing professional development to aid the effort, (q. 23) recognition of the impact effort has on workload, (q. 24) fair system of reward for effort, and (q. 25) providing resources to support effort. The Cronbach's alpha value for this six item subscale was .90.

Data Analysis

Data analysis consisted of a preliminary and main analyses. During preliminary analysis, the collected data was first manually reviewed for obvious missing and incorrect values, and then loaded into a statistical analysis software package, specifically Statistical Package for the Social Science (SPSS) version 23, for subsequent screening and scrutinizing in regard to reliability and validity. During main analysis, specific analytical

techniques were performed on the resulting data set in order to address each of the research questions. Further details regarding each phase are described in this section.

Preliminary Analyses

Data screening. In order to ensure reliability of the reported results, collected data was reviewed to check for errors, outliers, and missing data. Due to the relatively small data set (101 initial responses) with a relatively small number of initial variables (43), the researcher was able to manually identify responses that were obviously unusable. Upon first review, six responses were identified for removal: three responses in which the participants had selected *disagree* on the electronic consent form, and an additional three responses that were completely blank. Manual review of the remaining 95 responses also necessitated modifying three 'years of service' values that had been entered in non-numeric format (e.g., 'eight' instead of '8'), removing two 'secondary employer' values that incorrectly contained a teaching discipline, and eliminating three successful course completion rate percentage values that were unrealistically low (0, 13, and 15). It was assumed that faculty members who entered these low percentages did not understand the question correctly or did not use the survey's draggable slider bar graphic appropriately to enter their intended response. Additionally, only three faculty members indicated they taught for a secondary community college. With so few responses this data was unfit for analysis and therefore ignored.

Next, the data was imported into SPSS 23 and the Explore feature was used to confirm completion of the multi-item scales, yielding four additional responses that were deemed unusable because, although some of the demographic information was present, all of the subscale items were missing. Another 11 of the responses were found to be

missing more than three subscale items. The decision to include these responses in the main analyses was twofold. First, the responses did contain a majority of the information being collected and therefore were deemed beneficial for the descriptive statistics results. Second, the sample size was already relatively low and excluding an additional 11 responses would have negatively impacted the results. However, another variable was created and used to identify these 11 responses as outliers for the purpose of excluding them from later analyses if deemed necessary. A complete listing of the variable names and values used in survey data analyses is presented in Appendix B.

Categorizing the teaching discipline values was quite challenging because this survey question was open-ended and faculty members entered a large variety of responses. Another limitation in grouping the disciplines, beyond the extensive variety, was the small sample size. Many of the possible groups would have produced *n*-sizes too small for comparison. The decision was made to create two groups, STEM and non-STEM, and the resulting group sizes were comparable. A complete listing of the self-reported teaching discipline categorization is presented in Appendix C.

Ultimately, 91 community college online faculty members participated in this study by completing the Community College Online Faculty Member Digital Content Survey created and delivered through Qualtrics™.

Data normality. Once data screening was complete, descriptive statistics, including skewness and kurtosis values, were examined to ensure the data was normally distributed. According to Lei and Lomax (2005), skewness values greater than ±2.3 are severely non-normal, values between ±1.0 – 2.3 are considered moderately non-normal, and values less than ±1.0 are normal, and Byrne (2010) tells us kurtosis values greater

than ±7.0 are considered non-normal. Using these guidelines, kurtosis values were found to be normal but skewness values were moderately non-normal for all of the verbal and nonverbal items, as well as items one, three, four, and five in the successful course completion subscale. These deviations were caused by high means scores; a majority of the faculty members reported high agreement with demonstration of immediacy behaviors and the impact of digital content use on successful course completion. Because the purpose of the current study was to ascertain faculty members' perceptions of these constructs, these moderately non-normal items were retained for analysis.

One item, however, was identified as severely non-normal. The third question in the verbal immediacy behavior subscale was found to have severely non-normal skewness (-2.9) as well as non-normal kurtosis (9.2). As with the moderately non-normal items, this item's extremely high mean score (M = 5.4) caused severe abnormality and thus a decision was made to exclude this item. The descriptive statistics for all items other than those described here were deemed normal and therefore acceptable for analysis.

Principal component analysis. Another means of ensuring reliability was measuring constructs with multiple items. All remaining items comprising each of the four constructs—verbal and nonverbal immediacy behaviors, successful course completion, and institutional recognition—were analyzed using the principal component analysis extraction method with varimax rotation to determine whether or not there were four separate constructs being measured by the multiple items. As presented in Table 3, an initial four-factor solution was identified based on eigenvalues > 1 with clear and independent loadings for successful course completion and institutional recognition,

minor cross-loadings on verbal immediacy, and more prominent cross-loadings on nonverbal immediacy. Despite the unclear loadings, all items for the nonverbal subscale showed stronger factor loadings (0.77 to 0.93) than the cross-loaded items from the successful course completion subscale (0.57 to 0.68) and the decision was made to keep all items in this factor because it is conceptually different from successful course completion. Similarly, the five-item subscale for verbal immediacy had factor loadings (0.57 to 0.83) higher than the cutoff considered reasonably large (.30) by Warner (2013) and also showed two, lower cross-loading values within the successful course completion factor: conveying personality (0.45) and lower drop rate (0.43). Because conveying personality also cross-loaded with nonverbal immediacy (0.64), and it did not load on the intended factor, successful course completion, it was removed altogether. The drop rate item was retained as part of successful course completion because of the higher load value (0.68).

Table 3. Initial Principal Component Analysis Results.

Subscale item	Verbal Immediacy	Nonverbal Immediacy	Successful Course Completion	Institutional Recognition
In digital content I intentionally …				
Q1 – share personal information	.566			
Q2 – use inclusion verbiage	.570	.569		
Q4 – use humor	.834			
Q5 – praise students	.824			
Q6 – express emotion	.638			
In digital content I intentionally …				
Q1 – smile		.767		
Q2 – look directly at camera often		.786		
Q3 – gesture with hands/arms		.925		
Q4 – am animated when I talk		.887		
Q5 – use vocal variety		.890		
Q6 – relaxed body position		.778		

Table 3. cont.

Subscale Item	Verbal Immediacy	Nonverbal Immediacy	Successful Course Completion	Institutional Recognition
To contribute to student success I use digital content to intentionally …				
Q1 – convey personality	.453	.636		
Q2 – being visible/audible is important			.729	
Q3 – seem real to student		.621	.634	
Q4 – simulate face-to-face		.574	.531	
Q5 – help students get to know me		.675	.470	
Q6 – lower student drop rates	.433		.682	
My institution…				
Q1 – values my effort				.774
Q2 –adequately rewards my effort				.841
Q3 – provides professional development				.763
Q4 – recognizes workload impact				.899
Q5 – fair system of reward				.844
Q6 – provides adequate support resources				.740
Eigenvalue	1.73	9.48	1.18	4.04
% of variance	7.54	41.23	5.12	17.58
Cumulative %	7.54	48.77	53.89	71.47

Note. Coefficient values smaller than .40 were suppressed.

With the exception of the items just described, it was determined all items had good construct validity and could reasonably be interpreted as a measure of the intended construct. A second analysis was then conducted to determine if any substantial differences in factor loadings occurred after the personality item was removed. Minor differences did occur in almost every load value, and the cross-loadings were still present, but the largest difference was decreased factor load values for successful course completion items three, four, and five cross-loaded with nonverbal immediacy. Respectively, the load factors changed from .621 to .607, .574 to .565, and .675 to .664, providing further justification for removal of the personality item. See Table 4 for final principal component analysis results. Additionally, Eigenvalues increased from 71.5% to 71.6% cumulative percentage of variance explained by the four constructs. Based on

these favorable results, all items except conveying personality were selected to comprise the constructs used for main analyses.

Table 4. Final Principal Component Analysis Results.

Subscale item	Verbal Immediacy	Nonverbal Immediacy	Successful Course Completion	Institutional Recognition
In digital content I intentionally …				
Q1 – share personal information	.572			
Q2 – use inclusion verbiage	.576	.570		
Q4 – use humor	.836			
Q5 – praise students	.825			
Q6 – express emotion	.636			
In digital content I intentionally …				
Q1 – smile		.762		
Q2 – look directly at camera often		.782		
Q3 – gesture with hands/arms		.922		
Q4 – am animated when I talk		.886		
Q5 – use vocal variety		.891		
Q6 – relaxed body position		.775		
To contribute to student success I use digital content to intentionally …				
Q2 – being visible/audible is important			.737	
Q3 – seem real to student		.607	.646	
Q4 – simulate face-to-face		.565	.541	
Q5 – help students get to know me		.664	.481	
Q6 – lower student drop rates	.440		.686	
My institution…				
Q1 – values my effort				.775
Q2 –adequately rewards my effort				.842
Q3 – provides professional development				.763
Q4 – recognizes workload impact				.899
Q5 – fair system of reward				.843
Q6 – provides adequate support resources				.739
Eigenvalue	1.73	8.83	1.18	4.02
% of variance	7.87	40.16	5.35	18.28
Cumulative %	7.87	48.03	53.38	71.66

Note. Coefficient values smaller than .40 were suppressed.

Reliability. Finally, Cronbach's alpha reliability coefficients were calculated as an estimate of data reliability. As described earlier, the alpha values for subscales of verbal and nonverbal immediacy behaviors, successful course completion, and

institutional recognition were .79, .95, .89, and .90, respectively. Alpha values within the .70 - .95 range indicate consistency of measurement, or, in other words, provide evidence that the items measure the same concept (Warner, 2013). Therefore, the Cronbach's alpha values indicate all four subscales are reliable.

Validity. Although validity is more difficult to determine than reliability (Warner, 2013), steps were taken to ensure content validity in the current study. First, established scales were adapted to measure perceptions of verbal and nonverbal immediacy. Second, the scales developed by the researcher to measure perceptions of successful course completion and institutional recognition were carefully reviewed to ensure each item represented the construct being measured and were not repetitive.

Main Analyses

After completing preliminary data analyses, certain independent variable values had to be combined in order to make group *n*-sizes more balanced for comparison purposes. After grouping, additional analytical techniques using these new group variables along with existing group variables were applied to the data in order to address the research questions. The independent variable grouping decisions, along with the main analyses procedures, are described in greater detail here and the associated results are presented in Chapter IV.

Variable grouping. After preliminary analyses were done, there was one categorical variable and two ordinal variables with uneven group sizes. The categorical variable, primary community college employer, originally contained five categories that were condensed into small versus large primary community college employer to create two fairly even group sizes. The criteria for this split, more or less than 100 online faculty

members, was based on the number of faculty members determined when study participants were identified (see Table 1). Using this criteria, the small primary community college employer group ultimately consisted of the four smaller institutions while only one community college comprised the large community college employer group. This variable is referred to as *primary employer group* in the data tables.

The ordinal variables were recording voice (audible) and recording face/body (visible) within digital content. These variables initially contained four categories each (never, less than half, more than half, and always). The upper halves and lower halves were combined into *often* (always and more than half) and *not often* (never and less than half) to balance group *n*-sizes.

Question 1. The first research question sought to describe community college faculty members' demographics and use of video technology to create digital content in online courses. Therefore, descriptive statistics were examined and used to summarize the demographic data collected. In addition to calculating totals in each demographic area for all faculty members collectively, totals were calculated for these same items in each of three data subsets. These subsets were created by splitting the dataset by faculty members who do, would like to, or do not create digital content for use in their online courses. Similarly, responses to amount of digital content use for specific purpose categories (e.g., introducing discussion topics, demonstrating a technique, process, or procedure, etc.) were tallied for the entire sample as well as each of the three subsets.

Question 2. The second research question examined whether or not online community college faculty members perceived they are intentionally demonstrating verbal and nonverbal immediacy behaviors in the digital content they create. Online

faculty members' perceptions were described using descriptive analyses including mean scores, standard deviations, and the calculated percentage of some form of agreement with each question within the verbal and nonverbal immediacy behaviors constructs. Additionally, independent samples *t*-tests were utilized to determine any differences in faculty members' perceptions by comparing mean scores for the following participant groups: do/do not create digital content, male/female, audible often/not often, visible often/not often, full-time/adjunct, STEM/non-STEM discipline group, and large/small primary employer group. One-way ANOVA tests were utilized to determine the effects that categorical variable creating digital content (do/would/not) had on intentional demonstration of both verbal and nonverbal immediacy behaviors. Finally, Pearson correlations were calculated to illustrate the degree of association between each of the immediacy behavior constructs and age, years of service, and course success rate, as well as between the four subscales.

Question 3. The third research question expanded upon the second in that it examined whether or not faculty members perceived digital content use as a contributing factor toward online students' successful course completion. Again, faculty members' perceptions were described using descriptive analyses including mean scores, standard deviations, and the calculated percentage of some form of agreement but this time with each question within the successful course completion construct. As before, independent samples *t*-tests were utilized to determine any differences in faculty members' perceptions by comparing mean scores for the same seven participant groups: do/do not create digital content, male/female, audible often/not often, visible often/not often, full-time/adjunct, STEM/non-STEM discipline group, and large/small primary employer

group. A one-way ANOVA test was again utilized to determine the effects that categorical variable creating digital content (do/would/not) had on perceptions of successful course completion. Additionally, Pearson correlations were calculated to illustrate the degree of association between reported course success rate and primary employer group, audible often/not often, and visible often/not often, between digital content use as a contributing factor toward students' successful course completion and age, years of service, and reported course success rate, and between the four subscales.

Question 4. The fourth research question looked at whether or not faculty members perceived recognition from their respective institutions for the effort required to create digital content. Similar to questions two and three, descriptive analyses including mean scores, standard deviations, and the calculated percentage of some form of agreement with each question within the institutional recognition construct were used to describe faculty members' perceptions. Likewise, independent samples *t*-tests were used to determine any differences in faculty members' perceptions by comparing mean scores for the seven participant groups: do/do not create digital content, male/female, audible often/not often, visible often/not often, full-time/adjunct, STEM/non-STEM discipline group, and large/small primary employer group. A one-way ANOVA test was utilized to determine the effects that categorical variable creating digital content (do/would/not) had on perceptions of institutional recognition. Finally, Pearson correlations were calculated to illustrate the degree of association between faculty members' perceptions of institutional recognition and age, years of service, and course success rate, as well as between the four subscales.

Summary

This chapter described the methods used to ascertain community college faculty members' perceptions of creating digital content to enhance OISP. The research setting and participants selected for the study were described. The research design and procedures were also described along with a detailed explanation of the Community College Online Faculty Member Digital Content Survey instrument. To conclude, preliminary and main data analyses techniques were described. The results that were produced using the methodology described in this chapter are presented in Chapter IV.

CHAPTER IV

RESULTS

The purpose of this study was to ascertain community college faculty members' perceptions of creating digital content to enhance online instructor social presence (OISP) specifically related to verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort required to create digital content. Upon completion of preliminary analyses, responses from 91 faculty members were used to conduct the main analyses. The results of those analyses are described here, using a statistical significance level of $p < .05$ to indicate any significant group differences are based on an attributable cause and are not due to random chance. Collectively, the results will indicate if faculty members with different demographic characteristics, digital content creation, or self-reported course completion rates differ significantly in terms of their perceptions.

Research Questions

Question 1: What percent of community college faculty members are using video technologies to create digital content in online courses, how often are they audible or visible in their digital content, and what are their demographics?

The first research question sought to describe the online faculty members who do and do not create digital content as well as ascertain how frequently they are audible and visible in this content. This question was addressed by computing descriptive statistics to summarize categorical totals and corresponding percentages of the overall sample as well

as similar totals and percentages for three data subsets. These subsets were divided by faculty member responses to creating digital content: those who do, do not but would like to, or do not and would not like to. The analyses results are described and presented in table format here.

In regard to digital content creation, 45.6% of faculty members indicated they create digital content, 27.8% reported they *do not but would like to*, and 26.7% specified they *do not and would not like to*. All but one of the faculty members indicated White/Caucasian ethnicity. Regarding faculty members who create digital content, 65.9% are female (34.1% male), 75.6% are full-time (24.4% adjunct), 60.5% of them teach STEM disciplines (39.5% non-STEM), and 51.2% are employed by a large community college (48.8% small community college). Details regarding how this employer variable was grouped are described in Chapter III. Table 5 provides a summary of online faculty members' demographics and digital content creation.

Table 5. Online Faculty Members' Demographics and Digital Content Creation.

	I create digital content							
Variables	Do		All Do Not[a]		Do Not-Would Like To		Do Not-Would Not	
	Valid *n*	Valid%	Valid *n*	Valid%	Valid *n*	Valid%	Valid *n*	Valid%
Total	41	45.6	49	54.5	25	27.8	24	26.7
Gender	41		49		25		24	
Male	14	34.1	14	28.6	7	28.0	7	29.2
Female	27	65.9	35	71.4	18	72.0	17	70.8
Ethnicity	41		49		25		24	
White/Caucasian	41	100.0	48	98.0	25	100.0	23	95.8
Other	0	0.0	1	2.0	0	0.0	1	4.2
Age	39		44		23		21	
26 - 39	17	43.6	17	38.6	11	47.8	6	28.6
40 - 49	13	33.3	12	27.3	4	17.4	8	38.1
50 - 69	9	23.1	15	34.1	8	34.8	7	33.3

Table 5. cont.

Variables	I create digital content							
	Do		All Do Not[a]		Do Not-Would Like To		Do Not-Would Not	
	Valid *n*	Valid %	Valid *n*	Valid%	Valid *n*	Valid%	Valid *n*	Valid%
Total	41	45.6	49	54.5	25	27.8	24	26.7
Employment status	41		49		25		24	
Full-time faculty	31	75.6	23	46.9	15	60.0	8	13.7
Adjunct faculty	10	24.4	26	53.1	10	40.0	16	44.1
Years of service	35		43		22		21	
0 – 9	14	40.0	20	46.5	10	45.5	10	47.6
10 – 19	13	37.1	15	34.9	8	36.4	7	33.3
20+	8	22.9	8	18.6	4	18.2	4	19.0
Teaching Discipline	38		47		24		23	
STEM	23	60.5	18	38.3	9	37.5	9	39.1
non-STEM	15	39.5	29	61.7	15	62.5	14	60.9
Primary Employer	41		49		25		24	
CC1	21	51.2	26	53.1	12	48.0	14	58.3
CC2	8	19.5	7	14.3	5	20.0	2	8.3
CC3	7	17.1	5	10.2	3	12.0	2	8.3
CC4	2	4.9	9	18.4	4	16.0	5	20.8
CC5	3	7.3	2	4.1	1	4.0	1	4.2
Primary Employer Grp	41		49		25		24	
Large (100+ faculty)	21	51.2	26	53.1	12	48.0	14	58.3
Small (< 100)	20	48.8	23	46.9	13	52.0	10	41.7

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion.

[a] The All Do Not totals are further codified into Do Not-Would Like To and Do Not-Would Not.

As anticipated, comparing digital content creation in regard to how often faculty members are audible and visible in this digital content shows 85.4% of those who *do* create are often audible and conversely many of these same faculty members are not often visible (70.7%). Similarly, the results indicated faculty members who would like to create digital content have high aspirations that they would be audible often (76.0%) and

not often visible (60.0%). Finally, faculty members who have no desire to create digital content reported they would not often be audible (60.9%) or visible (91.3%).

There were minimal differences between self-reported successful course completion rates for faculty members who do and do not create digital content. Most faculty members reported success in the 91-100% range: 43.2% of those who create, 45.5% of those who would like to, and 45.0% of those who do not-would not. For descriptive purposes only, the open-ended responses to this question were split into three categories that maintained the natural order of the data, included the full range of data values entered by faculty members, and yet ensured fairly equal intervals. Further discussion of ungrouped completion rates will be presented in conjunction with research question three. Table 6 includes a summary of online faculty members' audible/visible frequency and self-reported successful course completion rate.

Table 6. Online Faculty Members' Audible/Visible Frequency and Self-Reported Successful Course Completion Rate.

			I create digital content							
	Overall Sample[a]		Do		All Do Not[b]		Do Not-Would Like To		Do Not-Would Not	
Variables	Valid *N*	Valid%	Valid *n*	Valid%	Valid *n*	Valid%	Valid *n*	Valid%	Valid *n*	Valid%
Total	91	100.0	41	45.6	49	54.5	25	27.8	24	26.7
Audible	90		41		48		25		23	
Often	64	71.1	35	85.4	28	58.3	19	76.0	9	39.1
Not often	26	28.9	6	14.6	20	41.7	6	24.0	14	60.9
Visible	90		41		48		25		23	
Often	25	27.8	12	29.3	12	25.0	10	40.0	2	8.7
Not often	65	72.2	29	70.7	36	75.0	15	60.0	21	91.3
Success rate	80		37		42		22		20	
91-100%	35	43.8	16	43.2	19	45.2	10	45.5	9	45.0
81-90%	23	28.7	12	32.4	11	26.2	3	13.6	8	40.0
80% or less	22	27.5	9	24.3	12	28.6	9	40.9	3	15.0

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion.

[a] The Overall Sample totals are further codified into Do and All Do Not

[b] The All Do Not totals are further codified into Do Not-Would Like To and Do Not-Would Not

Along with these descriptive characteristics, participants indicated how frequently they use digital content for specific purposes. These results are categorized and summarized in Table 7. Faculty members who create digital content most commonly use it to show worked examples (Usually-46.2%), replicate face-to-face lectures (Always-38.5%), and demonstrate a process, procedure, or technique (Usually-38.5%). Faculty members who do not, but would like to, create digital content indicated providing feedback to students (Sometimes-54.2%) and introducing discussion (Sometimes-56.0%) would be the most common purposes. Similarly, even faculty members who do not-would not create digital content indicated it would be useful for introducing discussion (Sometimes-50.0%). Six faculty members reported they would use digital content for other purposes, and five specific examples were given. Three came from faculty members who create digital content: “to create a more face-to-face experience”, “math learning system”, and “hands on labs”. One example was shared by a faculty member who would like to create digital content: “welcome students to class”. The final example came from a faculty member who does not create digital content: “to help others understand a hard part of any lesson”.

Table 7. Online Faculty Members' Digital Content Purpose.

Digital Content Purpose	Overall Sample $N = 91$		I create digital content: Do $n = 41$		Do Not-Would Like To $n = 25$		Do Not-Would Not $n = 24$	
	Valid *n*	Valid %	Valid *n*	Valid %	Valid *n*	Valid %	Valid *n*	Valid %
I do/would use the digital content for								
Generate/introduce discussion	87		39		25		22	
Always	13	14.9	10	25.6	2	8.0	1	4.5
Usually	17	19.5	8	20.5	6	24.0	3	13.6
Sometimes	41	47.1	15	38.5	14	56.0	11	50.0
Never	16	18.4	6	15.4	3	12.0	7	31.8
Show worked examples	85		39		25		20	
Always	17	20.0	9	23.1	6	24.0	2	10.0
Usually	31	36.5	18	46.2	8	32.0	5	25.0
Sometimes	24	28.2	9	23.1	9	36.0	5	25.0
Never	13	15.3	3	7.7	2	8.0	8	40.0
Replicate an on-campus lecture	85		39		25		20	
Always	21	24.7	15	38.5	4	16.0	2	10.0
Usually	23	27.1	11	28.2	9	36.0	3	15.0
Sometimes	22	25.9	9	23.1	8	32.0	4	20.0
Never	19	22.4	4	10.3	4	16.0	11	55.0
Demonstrate a technique, procedures, or process	87		39		25		22	
Always	23	26.4	13	33.3	8	32.0	2	9.1
Usually	30	34.5	15	38.5	8	32.0	7	31.8
Sometimes	24	27.6	8	20.5	8	32.0	7	31.8
Never	10	11.5	3	7.7	1	4.0	6	27.3
Provide feedback to students	85		39		24		21	
Always	12	14.1	5	12.8	3	12.5	4	19.0
Usually	11	12.9	7	17.9	3	12.5	1	4.8
Sometimes	33	38.8	14	35.9	13	54.2	5	23.8
Never	29	34.1	13	33.3	5	20.8	11	52.4
Other	17		8		4		5	
Always	3	17.6	2	25.0	1	25.0	0	0.0
Usually	2	11.8	1	12.5	0	0.0	1	20.0
Sometimes	1	5.9	1	12.5	0	0.0	0	0.0
Never	11	64.7	4	50.0	3	75.0	4	80.0

Note. Questions were phrased "I use" versus "I would use" based on the response to digital content creation. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion.

Question 2: What are community college faculty members' perceptions of using video technologies to create digital content in online courses as a means to intentionally convey verbal and nonverbal immediacy behaviors?

The second research question explored perceived intentionality of verbal and nonverbal immediacy behavior demonstration while creating digital content. Descriptive

statistics, independent samples *t*-tests, a one-way ANOVA, and Pearson correlations were used to answer this question. The results of those analyses are described and presented in table format here.

Table 8 shows questions related to verbal immediacy behaviors for the entire sample. Faculty members reported mean levels 4.6 and above for all questions in this scale, indicating a perception that they currently do, or possibly would, intentionally demonstrate these behaviors while creating digital content. In particular, faculty members agreed with question 2 (95.3%, $M = 5.2$) regarding intentional use of inclusion verbiage while creating digital content. The lowest percentage of agreement was question 5 with 82.6% indicating some form of agreement ($M = 4.7$) with intentionally using digital content to praise students.

Table 8. Faculty Members' Perceptions of Intentionally Demonstrating Verbal Immediacy Behaviors.

Question Number	Verbal Immediacy Behaviors Questions	% Some Form of Agreement	*n*	*M*	*SD*
	While creating my digital content, I intentionally …				
Q1	share personal examples with my students	89.5	86	4.6	1.2
Q2	refer to the class as "ours" or what "we" are doing	95.3	85	5.2	1.0
Q4	use humor	94.2	86	4.9	1.1
Q5	praise the students' work, actions, or comments	82.6	86	4.7	1.5
Q6	express emotion (excitement, frustration, concern, etc.)	87.2	86	4.6	1.3

Note. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

A further breakdown of demonstrated verbal immediacy behaviors by digital content creation is shown in Table 9, emphasizing the mean level differences that exist among these subgroups. Faculty members who *would like to* create digital content reported ambitious goals of expressing humor (Q4, 100.0%, $M = 5.3$) and using inclusion verbiage (Q2, 96.0%, $M = 5.2$). Faculty members *who do not-would not* create digital

content indicated slight agreement for the more personal actions of expressing emotion (Q6, 73.9%, *M* = 4.1) and sharing personal examples (Q1, 78.3%, *M* = 4.3). Verbal subscale item mean levels further varied for faculty members who create digital content in regard to intentionally using humor (Q4, 89.2%, *M* = 4.7), praising students (Q5, 73.0%, *M* = 4.2), and expressing emotion (Q6, 89.2%, *M* = 4.7). These behaviors may seem like easy and practical actions to implement until one actually tries.

Table 9. Faculty Members' Perceptions, by Digital Content Creation, of Intentionally Demonstrating Verbal Immediacy Behaviors.

While creating my digital content, I intentionally …	Do				Do Not-Would Like To				Do Not-Would Not			
	n	%	*M*	*SD*	*n*	%	*M*	*SD*	*n*	%	*M*	*SD*
Q1 - share personal examples with my students	37	91.9	4.8	1.2	25	96.0	4.7	0.9	23	78.3	4.3	1.6
Q2 - refer to the class as "ours" or what "we" are doing	37	97.3	5.2	0.8	25	96.0	5.2	1.2	22	95.5	5.1	1.1
Q4 - use humor	37	89.2	4.7	1.1	25	100.0	5.3	0.7	23	95.7	4.9	1.2
Q5 - praise the students' work, actions, or comments	37	73.0	4.2	1.6	25	92.0	5.0	1.3	23	87.0	5.0	1.5
Q6 - express emotion (excitement, frustration, concern, etc.)	37	89.2	4.7	1.2	25	96.0	4.9	0.9	23	73.9	4.1	1.5

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

Table 10 shows questions related to nonverbal immediacy behaviors for the full sample, again without regard to whether or not digital content is actually created. Compared to the number of faculty members who responded to the verbal immediacy behavior questions (*n* = 85-86), fewer faculty members chose to answer the nonverbal immediacy behavior questions (*n* = 80-82). However, as with the verbal subscale, faculty members indicated mean levels 4.7 and above for all of the questions in the nonverbal subscale, similarly indicating a perception that they do or would intentionally demonstrate nonverbal immediacy behaviors when creating digital content. The highest percentage of agreement occurred with intentionally smiling (Q7, 92.7%, *M* = 4.8), yet

intentionally looking directly toward the camera had a slightly higher mean value (Q8, 91.4%, *M* = 5.0).

Table 10. Faculty Members' Perceptions of Intentionally Demonstrating Nonverbal Immediacy Behaviors.

Question Number	Nonverbal Immediacy Behaviors Questions	% Some Form of Agreement	*n*	*M*	*SD*
	While creating my digital content, I intentionally …				
Q7	smile	92.7	82	4.8	1.3
Q8	look directly toward the camera often	91.4	81	5.0	1.2
Q9	use my hands and arms to gesture	88.9	81	4.8	1.3
Q10	am animated when I talk	82.5	80	4.7	1.4
Q11	have a lot of vocal variety	82.5	80	4.7	1.4
Q12	have a relaxed body position	87.7	81	4.8	1.2

Note. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

The breakdown of intentional demonstration of nonverbal immediacy behaviors by digital content creation yielded results similar to verbal immediacy behaviors; there are a number of mean level differences as shown in Table 11. Those who create digital content indicated large percentages of agreement with intentionally smiling (Q7, 94.6%, *M* = 4.8) and looking directly toward the camera (Q8, 94.6%, *M* = 5.1), although all subgroups reported similar response means for these items (*M* = 4.7 – 5.1). However, there is a marked difference between the *do not* subgroups in perceptions of having a relaxed body position (Q12). Faculty members who would like to create (91.3%, *M* = 4.9) differed from faculty members who would not like to create (76.2%, *M* = 4.3), implying the latter group would not feel comfortable being visible on camera. A similar difference exists between the *do* and *would like to* groups in regard to intentionally having a lot of vocal variety (Q11). Faculty members who create digital content reported 77.1% agreement (*M* = 4.6) while those who would like to create digital content reported 87.0% agreement (*M* = 4.9), suggesting those who do not actually create digital content perceive

they would vary how they speak more so than faculty members who currently create digital content.

Table 11. Faculty Members' Perceptions, by Digital Content Creation, of Intentionally Demonstrating Nonverbal Immediacy Behaviors.

While creating my digital content, I intentionally …	Do				Do Not-Would Like To				Do Not-Would Not			
	n	%	*M*	*SD*	*n*	%	*M*	*SD*	*n*	%	*M*	*SD*
Q7 - smile	37	94.6	4.8	1.2	23	91.3	5.0	1.4	21	90.5	4.7	1.4
Q8 - look directly toward the camera often	37	94.6	5.1	0.9	23	87.0	4.9	1.4	20	90.0	4.8	1.4
Q9 - use my hands and arms to gesture	36	88.9	4.9	1.4	23	87.0	4.9	1.4	21	90.5	4.6	1.1
Q10 - am animated when I talk	35	80.0	4.6	1.5	23	87.0	4.9	1.4	21	81.0	4.5	1.2
Q11 - have a lot of vocal variety	35	77.1	4.6	1.6	23	87.0	4.9	1.5	21	85.7	4.6	1.2
Q12 - have a relaxed body position	36	91.7	5.0	1.0	23	91.3	4.9	1.4	21	76.2	4.3	1.3

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

Beyond the descriptive statistics, a series of independent-samples *t*-tests, a one-way ANOVA, and bivariate correlations were conducted to address this research question. The significant and nonsignificant results are further discussed here.

Significant results. There were several statistically significant comparisons with medium (0.3 to 0.5), large (0.6 to 0.8), and very large (0.9 to 1.5) effect sizes (Warner, 2013) which are shown in Table 12. Comparing intentional demonstration of verbal immediacy behaviors between faculty members in the large and small primary community college employer groups yielded a significant difference in scores for small colleges; faculty members in the smaller institutions perceive they are intentionally demonstrating verbal immediacy in digital content more than their counterparts. Similar significance was found between the visible often versus not often groups, signifying faculty members who are visible often also perceive they intentionally demonstrate verbal immediacy behaviors more.

In regard to intentional nonverbal immediacy behavior perceptions, significant differences were found between male and female faculty members, those who are audible often as opposed to not often, as well as between those who are visible often versus not often. The results indicated women, more so than men, and those who are often audible and visible, more so than those who are not, perceive they are intentionally demonstrating nonverbal immediacy in digital content.

Table 12. Independent Samples *t*-tests Producing Significant Differences for Verbal and Nonverbal Immediacy Behaviors.

Dependent Variable	Independent Variable		*M*	SD	Mean Difference	*t*	*df*	*p*	*d*
Verbal Immediacy Behaviors	Primary Employer Group								
		Large	4.5	1.04	-0.59	-3.16	84	.002	-0.682
		Small	5.1	.65					
	Visible								
		Often	5.1	.72	0.45	2.12	84	.037	0.532
		Not often	4.7	.95					
Nonverbal Immediacy Behaviors	Gender								
		Male	4.4	.94	-0.56	-2.07	80	.042	-0.514
		Female	5.0	1.21					
	Audible								
		Often	5.0	.96	0.79	2.84	80	.006	0.637
		Not often	4.2	1.46					
	Visible								
		Often	5.4	.57	0.90	3.40	80	.001	0.933
		Not often	4.5	1.24					

Note. Degrees of freedom vary because incomplete responses were addressed using pairwise deletion. The range of both dependent variable subscales extended from 1 (strongly disagree) to 6 (strongly agree).

Statistical significance was also found in the Pearson correlation calculated to illustrate the degree of association between intentional demonstration of verbal and nonverbal immediacy behaviors. According to Warner (2013), correlation values between .410 and .600 are considered a very large, or positive, effect and values .707 and beyond are considered extremely large. Therefore, these two dependent variables have a very

strong, positive relationship, $r(81) = .55$, $p < .01$, indicating faculty members who exhibit more nonverbal behaviors also exhibit more verbal behaviors. Table 20, provided with research question four at the end of this chapter, contains a comprehensive image of all construct correlation and internal consistency values.

Nonsignificant results. No significance differences were detected in the independent samples *t*-tests comparing verbal immediacy behavior perceptions between males/females ($M = 4.6/4.8$, $p = .169$) and faculty members who are audible often/not often ($M = 4.9/4.5$, $p = .073$), or when comparing nonverbal immediacy behavior perceptions between large/small primary community college employer ($M = 4.5/5.0$, $p = .067$). Still, the larger variation in the group mean differences between those audible often/not often (.04) supports a logical conclusion that faculty members who record their voice often in digital content have strong agreement with intentionally demonstrating verbal immediacy behaviors. However, a similar variation between large/small primary community college employer group mean values (.05) is not so easily explained and might indicate faculty members at the smaller institutions perceive they are intentionally demonstrating nonverbal immediacy behaviors more.

Additional analyses conducted to address this research question also yielded no statistically significant differences. Independent samples *t*-tests that compared verbal and nonverbal immediacy behavior perceptions between groups full-time/adjunct, do/do not create digital content, and STEM/non-STEM discipline group generated no significant differences ($p > .236$ for all independent variables). Similarly, there were no significant main effects found in either of the one-way ANOVAs comparing categorical group creating digital content (do/would/not) with verbal immediacy behavior perceptions,

$F(2,82) = 1.14$, $p = .326$, or nonverbal immediacy behavior perceptions, $F(2,78) = 0.51$, $p = .601$. Finally, no significance resulted from the Pearson correlations calculated to illustrate the degree of association between perceptions of both verbal and nonverbal immediacy behaviors with each of the following variables: age, years of service, and reported course success rate (r = -.13 to .13). With all correlation values close to zero there is essentially no association because of these weak effects (Warner, 2013).

Question 3: What are community college faculty members' perceptions of enhanced online instructor social presence as a contributing factor toward online students' successful course completion?

The third research question explored faculty members' perceptions regarding the impact of digital content use on students' successful course completion. Similar to research question two, results from the descriptive statistics, independent samples *t*-tests, one-way ANOVA, and Pearson correlations used to answer this question are described and presented in table format here.

Table 13 shows questions regarding digital content use as a contributing factor toward successful course completion for the entire sample. Regardless of whether or not they create digital content, 86.0% of faculty members reported some form of agreement with intentionally using digital content to help students perceive them as a real person (Q15, $M = 4.8$), 79.1% agreed it is important to be audible or visible in order to impact students' successful course completion (Q14, $M = 4.4$), and 75.6% agreed digital content use can impact student drop rates (Q18, $M = 4.2$). Overall, faculty members collectively showed lower response mean values to these subscale questions compared with the verbal and nonverbal immediacy subscales. Faculty members may be more aware of the details associated with supplementing course content than its impact on overall course success.

Table 13. Faculty Members' Perceptions of Digital Content Use as a Contributing Factor toward Successful Course Completion.

Question Number	Successful Course Completion Questions	% Some Form of Agreement	*n*	*M*	*SD*
	In order to contribute toward my online students' successful course completion …				
Q14	it is important for me to be visible and/or audible in the digital content I create	79.1	86	4.4	1.4
Q15	I intentionally use the digital content I create as a way to help my students perceive me as a real person	86.0	86	4.8	1.3
Q16	I intentionally use created digital content to communicate with my students as if we were face-to-face	82.6	86	4.6	1.4
Q17	I intentionally use created digital content as a way for my students to get to know me better	82.6	86	4.4	1.3
Q18	My students are less likely to drop out of class when they perceive me as a real person through digital content I create	75.6	86	4.2	1.4

Note. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

A further breakdown of this subscale by digital content creation is shown in Table 14. In regard to intentionally using digital content to help students to get to know them better as a means of impacting successful course completion (Q17), the *do* group reported 81.6% agreement (*M* = 4.5), the *would like to* group reported 92.0% agreement (*M* = 4.6), and the *do not-would not* group reported 72.7% agreement (*M* = 4.1). Regarding digital content use impacting student drop rates (Q18), there was 84.2% agreement in the *do* group (*M* = 4.6), 88.0% agreement in the *would like to* group (*M* = 4.4), and 45.5% agreement in the *do not-would not* group (*M* = 3.5). A majority of faculty members who do not want to create digital content actually disagree it would affect student drop rates.

Table 14. Faculty Members' Perceptions, by Digital Content Creation, of Digital Content Use as a Contributing Factor toward Successful Course Completion.

In order to contribute toward my online students' successful course completion ...	Do				Do Not-Would Like To				Do Not-Would Not			
	n	%	*M*	*SD*	*n*	%	*M*	*SD*	*n*	%	*M*	*SD*
Q14 - it is important for me to be visible and/or audible in the digital content I create	39	79.5	4.5	1.5	25	88.0	4.8	1.1	21	66.7	3.9	1.5
Q15 - I intentionally use the digital content I create as a way to help my students perceive me as a real person	38	84.2	4.9	1.4	25	92.0	5.0	1.2	22	81.8	4.3	1.3
Q16 - I intentionally use created digital content to communicate with my students as if we were face-to-face	38	78.9	4.6	1.5	25	88.0	4.7	1.4	22	81.8	4.4	1.2
Q17 - I intentionally use created digital content as a way for my students to get to know me better	38	81.6	4.5	1.4	25	92.0	4.6	1.2	22	72.7	4.1	1.3
Q18 - My students are less likely to drop out of class when they perceive me as a real person through digital content I create	38	84.2	4.6	1.3	25	88.0	4.4	1.1	22	45.5	3.5	1.4

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

In conjunction with their perceptions of digital content use contributing toward successful course completion, faculty members were asked to report the percentage of students that successfully completed the particular online course they had been asked to focus on while completing the questionnaire. The mean success rate was 86.8% for the full sample (n = 80), 87.2% for faculty members who create digital content (n = 37), and 86.6% for those who do not (n = 42). Further breakdown of those who do not create

yielded 85.5% for faculty members who would like to create (n = 22) and 87.8% for faculty members who do not-would not create digital content (n = 20).

Table 15 contains a comparison of self-reported successful course completion rates between faculty members who do and do not create digital content, as well as an additional breakout of the 'do not' category showing those who would and would not like to create digital content. Although the values were initially captured via an open-ended response, for descriptive purposes they have been grouped in descending intervals of five percentage points each with one exception. The 100% completion rates were isolated to highlight the highest level of completion. As discussed earlier, the three completion rate values less than 50 were identified as errors and removed.

Table 15. Successful Course Completion Rate for Online Faculty Members (n = 80).

What is the successful completion rate of your course?	Total		I create digital content							
			Do		All Do Not		Do Not-Would Like To		Do Not-Would Not	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Total	80	100.0	37	46.3	42	53.2	22	29.3	20	24.4
100	9	11.3	3	8.1	6	13.6	3	13.6	3	15.0
95 – 99	13	16.3	6	16.2	7	15.9	3	13.6	4	20.0
90 – 94	21	26.3	11	29.7	10	22.7	5	22.7	5	25.0
85 – 89	8	10.0	5	13.5	3	6.8	0	0.0	3	15.0
80 – 84	18	22.5	7	18.9	10	22.7	7	31.8	3	15.0
75 – 79	2	2.5	2	5.4	0	0.0	0	0.0	0	0.0
70 – 74	4	5.0	2	5.4	2	4.5	2	9.1	0	0.0
65 – 69	3	3.8	0	0.0	3	6.8	2	9.1	1	5.0
60 – 64	1	1.3	1	2.7	0	0.0	0	0.0	0	0.0
55-59	0	0.00	0	0.0	0	0.0	0	0.0	0	0.00
50-54	1	1.3	0	0.0	1	2.3	0	0.00	1	5.0

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion. The percentage totals do not equal 100 for all categories due to rounding.

An equal number of faculty members in each category (do/would/not) self-reported successful completion rates of 100%. However, the majority of all responses fall

within the 90-99% ranges. Faculty members either think their students are quite successful or do not want to admit failure.

In addition to the descriptive statistics just presented, a series of independent-samples *t*-tests, a one-way ANOVA, and bivariate correlations were conducted to address research question three. Discussion of the significant and nonsignificant results follows.

Significant results. There were three statistically significant comparisons with medium to large effects which are shown in Table 16. Faculty members who are audible and visible more often than not, as well as those who are employed by a smaller primary community college employer, reported stronger agreement that digital content use is a contributing factor toward students' successful course completion.

Table 16. Independent Samples *t*-tests Producing Significant Differences for Digital Content Use as a Contributing Factor toward Successful Course Completion.

Dependent Variable	Independent Variable		*M*	SD	Mean Difference	*t*	*df*	*p*	*d*
Successful Course Completion	Employer Grp:	Large	4.2	1.15	-0.55	-2.31	85	.023	-0.494
		Small	4.7	1.07					
	Audible:	Often	4.6	1.09	0.66	2.45	85	.016	0.589
		Not often	4.0	1.15					
	Visible:	Often	5.2	.51	1.09	4.47	85	.000	1.206
		Not often	4.2	1.17					

Note. Degrees of freedom may vary because incomplete responses were addressed using pairwise deletion. The range of the dependent variable subscale extended from 1 (strongly disagree) to 6 (strongly agree).

In addition, statistical significance was found in the Pearson correlation calculated to illustrate the degree of association between intentional demonstration of verbal and nonverbal immediacy behaviors and digital content use as a contributing factor toward students' successful course completion. There is a very strong, positive relationship between verbal immediacy behaviors and perception of digital content use as a contributing factor toward success, $r(85) = .58$, $p < .01$, and a very strong, positive

relationship between nonverbal immediacy behaviors and this success, $r(82) = .70$, $p < .01$. Faculty members who are intentionally demonstrating verbal and nonverbal immediacy behaviors in their digital content perceive it contributes to their students' successful course completion. Table 20, provided at the end of this chapter with research question four, is a comprehensive overview of all construct correlation and internal consistency values.

Nonsignificant results. Additional analyses conducted to address research question three did not produce any statistically significant differences. Independent samples *t*-tests comparing males to females, full-time to adjunct, those who create digital content to those who do not, and STEM to non-STEM teaching disciplines generated no significant differences ($p > .219$ for all independent variables). Likewise, the one-way ANOVA conducted to compare faculty members' perceptions of digital content use as a contributing factor toward students' successful course completion between the categorical group creating digital content (do/would/not), $F(2,83) = 2.44$, $p = .093$, produced no significant main effects. Calculated Pearson correlations also showed no significance when comparing perceptions of digital content use as a contributing factor toward successful course completion with variables age, years of service, and reported course success rate ($r = -.03$ to $.11$). Reported course success rate was also compared with faculty members' reported frequency of being audible, frequency of being visible, and primary employer group ($r = -.13$ to $.13$). Again, correlation values were close to zero so the effects between these variables is considered weak and they are therefore not associated.

Question 4: What are community college faculty members' perceptions of the recognition they receive from their institution for using video technologies to create digital content for use in their online courses?

The fourth research question explored perceived institutional recognition for creating digital content. Similar to the other research questions regarding faculty members' perceptions, analyses used to address this question included descriptive statistics, independent samples *t*-tests, a one-way ANOVA, and Pearson correlations. The results are described and presented in table format here.

Table 17 shows questions related to institutional recognition for the entire sample. Faculty members who do and do not create digital content reported 89.8% agreement that their institution values the creation effort (Q20, $M = 4.7$), 51.8% agreement regarding adequateness of reward (Q21, 51.8%, $M = 3.4$), and 44.3% agreement regarding fairness of reward (Q24, $M = 3.2$).

Table 17. Faculty Members' Perceptions of Institutional Recognition for the Effort Required to Create Digital Content.

Question Number	Recognition Questions	% Some Form of Agreement	*n*	*M*	*SD*
	My community college …				
Q20	values my effort to create digital content	89.8	88	4.7	1.2
Q21	adequately rewards me for my effort to create digital content	51.8	85	3.4	1.3
Q22	provides professional development to aid me in creating digital content	67.0	88	4.0	1.3
Q23	recognizes the impact my effort to create digital content has on my workload	59.1	88	3.5	1.3
Q24	has a fair system in place to reward the effort I invest in creating digital content	44.3	88	3.2	1.3
Q25	provides resources to support my effort to create digital content	77.3	88	4.3	1.2

Note. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

Table 18 provides a further breakdown of institutional recognition perceptions by digital content creation. Overall, the results again indicate slight variations in the

response mean values for each subgroup. However, there is a noticeable difference in percentage of agreement and mean values regarding resources provided to support digital content creation (Q25): the *would like to* group reported 80.0% agreement (*M* = 4.5) and the *do not-would not* group showed 69.6% agreement (*M* = 4.0).

Table 18. Faculty Members' Perceptions, by Digital Content Creation, of Institutional Recognition for the Effort Required to Create Digital Content.

	Do				Do Not-Would Like To				Do Not-Would Not			
My community college …	*n*	%	*M*	*SD*	*n*	%	*M*	*SD*	*n*	%	*M*	*SD*
Q20 - values my effort to create digital content	39	87.2	4.7	1.3	25	88.0	4.7	1.1	23	95.7	4.8	1.1
Q21 - adequately rewards me for my effort to create digital content	37	56.8	3.5	1.5	25	44.0	3.1	1.3	22	50.0	3.4	1.1
Q22 - provides professional development to aid me in creating digital content	39	64.1	3.9	1.4	25	72.0	4.2	1.1	23	65.2	4.0	1.5
Q23 - recognizes the impact my effort to create digital content has on my workload	39	64.1	3.6	1.4	25	48.0	3.3	1.2	23	60.9	3.6	1.3
Q24 - has a fair system in place to reward the effort I invest in creating digital content	39	41.0	3.1	1.3	25	44.0	3.2	1.4	23	47.8	3.3	1.2
Q25 - provides resources to support my effort to create digital content	39	79.5	4.3	1.1	25	80.0	4.5	1.2	23	69.6	4.0	1.3

Note. One participant did not indicate digital content creation and was excluded from these totals. The *n* values vary because incomplete responses were addressed using pairwise deletion. The range of this subscale extended from 1 (strongly disagree) to 6 (strongly agree).

Along with the descriptive statistics, analyses consisting of independent-samples *t*-tests, a one-way ANOVA, and bivariate correlations were conducted to address this research question. The significant and nonsignificant results are described here.

Significant results. For the construct of perceived institutional recognition, there were two statistically significant comparisons with medium to large effect sizes as shown in Table 19. Faculty members who teach in non-STEM related disciplines reported higher agreement with the dependent variable of institutional recognition for required efforts to create digital content. Adjunct faculty members also reported higher agreement. These groups have a stronger perception that their community colleges recognize these efforts.

Table 19. Independent Samples *t*-tests Producing Significant Differences for Institutional Recognition.

Dependent Variable	Independent Variable	*M*	SD	Mean Difference	*t*	*df*	*p*	*d*
Institutional Recognition	status: Full-time	3.6	1.08	-0.53	-2.41	86	.018	-0.535
	Adjunct	4.2	.88					
	discipline: STEM	3.5	1.06	-0.73	-3.51	81	.001	-0.767
	non-STEM	4.2	.85					

Note. Degrees of freedom may vary because incomplete responses were addressed using pairwise deletion. The range of the dependent variable subscale extended from 1 (strongly disagree) to 6 (strongly agree)

Nonsignificant results. Additional analyses, producing no statistically significant differences, were conducted to address research question four. Independent samples *t*-tests that compared males/females, large/small primary community college employer, do/do not create digital content, audible often/not often, and visible often/not often generated no significant differences ($p > .145$ for all independent variables). Similarly, there were no significant main effects identified in the one-way ANOVA conducted to compare faculty members' perceptions of recognition between the categorical group creating digital content (do/would/not), $F(2,84) = 0.00$, $p = .998$.

Additionally, no significance resulted from any of the calculated Pearson correlations for this research question. Comparing faculty members' perceptions of institutional recognition for digital content creation efforts with variables age, years of service, and reported course success rate indicated there is no association between these variable pairs ($r = -.11$ to $.13$). Also, no statistical significance was found when comparing all measured subscales: faculty members' perceptions of intentional demonstration of verbal and nonverbal immediacy behaviors, digital content use as a contributing factor toward students' successful course completion, and institutional

recognition for effort required to create digital content. Table 20 provides a comprehensive review of all construct correlation and internal consistency values.

Table 20. Correlation of Subscale Constructs and Measure of Internal Consistency for Faculty Members' Perceptions of Digital Content Creation.

Construct	Items	Subscale	C1.	C2.	C3.	Cronbach's Alpha
C1.	1,2,4,5,6	Verbal Immediacy Behaviors				.79
C2.	7,8,9,10,11,12	Nonverbal Immediacy Behaviors	.55*			.95
C3.	14,15,16,17,18	Successful Course Completion	.58*	.70*		.89
C4.	20,21,22,23,24,25	Institutional Recognition	.03	.10	.18	.90

Summary

This study investigated differences between faculty member demographic groups, digital content creation groups, and self-reported online course completion rates on perceptions of intentional demonstration of verbal and nonverbal immediacy behaviors while creating digital content, digital content use as a contributing factor toward students' successful course completion, and institutional recognition for the effort required to create digital content. Chapter IV included the results of descriptive statistics as well as inferential statistical tests.

Significance was found within all four subscales. Significant main effects occurred between independent variables gender, primary employer group, and the frequency of being audible and visible within both immediacy behavior subscales. Similar significance was discovered between these same independent variables, with the exception of gender, on the digital content use impacting successful course completion subscale. Finally, significant main effect sizes occurred between the institutional recognition subscale and faculty member status as well as between institutional recognition and teaching discipline group. Additionally, strong positive correlations were

found between verbal immediacy behaviors, nonverbal immediacy behaviors, and digital content use impacting successful course completion, and also between teaching discipline groups and whether or not faculty members create digital content. Chapter V will interpret and discuss the results.

CHAPTER V

DISCUSSION

The purpose of this study was to ascertain community college faculty members' perceptions of creating asynchronous videos (i.e., digital content) to enhance online instructor social presence (OISP) specifically related to verbal and nonverbal immediacy behaviors, students' successful course completion, and recognition from their institution for the effort required to create digital content.

Chapter I broadly defined the research problem: a need to establish the percent and demographics of community college online faculty members who are using video technologies to create digital content, how frequently faculty members are audible or visible in their digital content, and their perceptions of digital content creation. Specifically, do online faculty members perceive they are intentionally demonstrating verbal and nonverbal immediacy behaviors while creating digital content, that their use of digital content contributes toward students' successful course completion, and that their institution recognizes the effort required to create digital content? The use of asynchronous video technologies to create digital content is an effective tool for enhancing OISP: online faculty members can simultaneously convey their unique persona verbally and nonverbally while supplementing course content. This enhanced OISP has been shown to increase student satisfaction and impact successful course completion. It is especially important to address this research problem given known drop rates, failure

rates, and poor performance in community college online courses, as well as recent changes to performance-based funding models that tie state funding to students' credit hours earned.

Chapter II described the theoretical context that grounded this study, Garrison et al.'s (2000) Community of Inquiry (CoI) framework, as it specifically addresses the role of instructors in establishing their social presence in conjunction with their teaching presence. This chapter also provided a synthesis of the literature regarding the five main facets of the research problem: first, it is important for online faculty members to establish and maintain a strong OISP. Second, demonstrated immediacy behaviors enhance OISP. Third, the use of digital content is an effective technique to convey immediacy behaviors and enhance OISP. Fourth, OISP contributes toward successful course completion, which continues to be an issue at community colleges. Fifth, there is a need to consider perceived institutional recognition for the effort required to create digital content.

Chapter III described the quantitative research methods used to investigate if faculty members with different demographic characteristics, digital content creation, or self-reported student course completion rates differ significantly in terms of their perceptions of digital content creation specifically related to the factors described earlier. Approximately 409 full-time and adjunct faculty members who teach online courses at five U.S. Midwestern community colleges that are part of a single, public university system were invited to participate in the study by completing a web-based survey. There were 101 initial responses and, upon completion of preliminary analysis, responses from 91 faculty members were used to conduct the main analyses.

Chapter IV contained results of the analyses, including descriptive statistics and numerous statistical tests conducted on the quantitative data. No statistically significant differences were found between faculty members who create, would like to create, or would not like to create digital content. However, there were several noticeable differences between their response mean levels for intentionally demonstrated verbal and nonverbal immediacy behaviors, digital content use as a contributing factor toward student's successful course completion, and institutional recognition for the effort required to create digital content. Additionally, strong positive correlations were found between verbal immediacy behaviors, nonverbal immediacy behaviors, and digital content use impacting successful course completion.

This chapter includes a summary for each research question to address the major conclusions, discussion, and implications of the findings. Chapter V concludes with implications for practice, limitations, and recommendations for future research.

Research Question Summary

Four research questions, each exploratory in nature, guided the study of community college online faculty members' perceptions of creating digital content to enhance OISP.

Question 1: What percent of community college faculty members are using video technologies to create digital content in online courses, how often are they audible or visible in their digital content, and what are their demographics?

The first research question sought to describe the percentage and demographics of online faculty members who do and do not create digital content. The findings demonstrated that 45.6% of community college online faculty members, regardless of the size of their primary employer institution, are creating digital content to supplement their

online courses. This is a marked increase from the 21% of community college faculty members using two-way asynchronous video reported by Parsad and Lewis (2008), but the increase seems reasonable and logical given the elapsed time between these studies. No recent comparable data regarding aggregate asynchronous video use (the focus of the current study) could be found, even though the literature review indicated faculty members are currently using video technologies. Surprisingly, half of the faculty members who reported they do not create digital content also reported they would like to, indicating one fourth of online faculty members have aspirations for enhancing their online courses that are not being realized. This study makes an important contribution to the research by providing a current usage value along with demographic information.

Faculty members reported very low inclusion of self in their digital content, as anticipated based on personal experience as well as informal discussions with online faculty members. In support of the numerous studies that indicate online instructors use audio communication and feedback (Borup et al., 2012; Kelly, 2007; York & Richardson, 2012), more than 70.0% of the overall sample reported often (always/usually) being audible and not often (sometimes/never) being visible. Faculty members seem comfortable including their voice but not their face/body in the videos.

In accordance with Kay (2012), online faculty members reported using digital content for the purposes of showing worked examples, replicating face-to-face lectures, and demonstrating a process, procedure, or technique. Faculty members who are not creating digital content would like to use it to provide feedback to students and introduce discussion. This finding supports the literature highlighting best practices and guidelines

for online teaching that suggests using video technologies to supplement online content (Kelly, 2007, 2012; Moon et al., 2005).

Comparing faculty members who do create digital content with those who do not showed no significant differences in regard to self-reported successful course completion rates. Most faculty members indicated completion rates between 91-100% for the particular online course they had been asked to focus on while completing the questionnaire. Further differences will be discussed in conjunction with research question three.

Question 2: What are community college faculty members' perceptions of using video technologies to create digital content in online courses as a means to intentionally convey verbal and nonverbal immediacy behaviors?

The second research question explored perceived intentionality of verbal and nonverbal immediacy behavior demonstration while creating digital content. Although fewer faculty members chose to respond to the nonverbal survey questions, collectively the findings indicated faculty members perceive they are or would intentionally demonstrate verbal and nonverbal immediacy behaviors in their digital content. The results disclosed distinct, although nonsignificant, differences between those who do create, would like to create, and do not create digital content.

Faculty members who do not create digital content reported lower mean levels for the interpersonal verbal actions of expressing emotions and sharing personal examples, and also with the nonverbal action of having a relaxed body position. While nonsignificant, this difference might suggest these faculty members have a personal discomfort with sharing emotion and being seen in a video. Faculty members may be

comfortable recording their voice, yet they may not feel relaxed or act naturally while their face and/or body movements are being captured during the video recording process.

Faculty members who would like to create digital content seemed very ambitious in their intended intentional use of humor and inclusion verbiage, behaviors that may seem natural to demonstrate in a video until one tries. Conversely, those who create digital content only reported lower mean levels with verbal immediacy behaviors using humor and praising students. Again, while nonsignificant, this might indicate those who create digital content seem confident and comfortable in their abilities to convey immediacy behaviors; they are neither overly optimistic nor overly pessimistic.

Significant group differences were found regarding perceptions of immediacy behaviors. Faculty members whose community college was categorized in the small primary employer group are intentionally demonstrating verbal immediacy behaviors more, while females are intentionally demonstrating nonverbal immediacy behaviors more. Also, significance was found between faculty members' perceptions of nonverbal immediacy behaviors and whether or not they were audible and visible often in digital content. This result was anticipated, because a faculty member who is intentionally demonstrating nonverbal immediacy behaviors would more than likely be speaking while visible; however, there may be times when this would not be the case (e.g., a silent video that depicts ways to be prepared for class). Similarly, significance was found between faculty members' perceptions of verbal immediacy behaviors and those who reported being visible often versus not often. Again, it seems likely the instructor would be audible if they are visible in a video.

Another similar, anticipated result was the strong, positive relationship between verbal and nonverbal immediacy behavior perceptions. As stated earlier, faculty members who exhibit more nonverbal behaviors usually exhibit more verbal behaviors. As this was a nonexperimental study, the Pearson correlation values do not infer causality (Warner, 2013) but instead are used descriptively.

Most of the literature regarding demonstrated immediacy behaviors focuses on students' perceptions of the online instructor (Borup et al., 2011, 2012; Griffiths & Graham, 2009; Schutt et al., 2009). The current study focused on community college online faculty members' perceptions and, while corroborating the faculty members' perspectives described by Borup et al. (2012) as well as York and Richardson (2012), is simultaneously providing a unique contribution to the literature in regard to what members of an online learning community "actually do during online courses and how this behavior relates to their perceptions" (Lowenthal & Dunlap, 2014, p. 27).

Question 3: What are community college faculty members' perceptions of enhanced online instructor social presence as a contributing factor toward online students' successful course completion?

The third research question investigated faculty members' perceptions regarding digital content use as a contributing factor toward students' successful course completion. The highest mean level was reported with intentionally using digital content to help students get to know the instructor as a real person in order to contribute toward student success while the lowest mean level was reported for the impact this particular use would have on student drop rates. Though nonsignificant, this finding might support previous research indicating there are numerous reasons other than not getting to know the instructor, such as personal issues and time constraints, which may impact a student's

decision to drop out of an online course (Aragon & Johnson, 2008; Diaz, 2002; Jaggars et al., 2013a; Levitz & Noel, 2000).

As with intentional immediacy behavior demonstration, the results for this question also showed distinct, though nonsignificant, differences between the reported mean levels of faculty members who do create, would like to create, and do not create digital content. In regard to intentionally using video to help students to get to know them better and subsequently impacting successful course completion, mean levels ranged from highest to lowest for faculty members who would like to create, those who do create, and those who do not create. Also similar to the results from intentional immediacy behavior demonstration, online faculty members who would like to create digital content have high aspirations with no actual experience to offset them, yet this group's willingness to enhance their OISP through demonstration of immediacy behaviors in digital content could impact student success. Recall LeFebvre and Allen's (2014) findings: students who perceive increased instructor immediacy will likely put forth more effort and commitment toward successful course completion.

Related to perceptions of enhanced OISP as a contributing factor toward student success, faculty members were also asked to report successful course completion rates. Although faculty members within all three categories of digital content creation reported an equal number of 100% success rates, slightly more faculty members who do not create digital content are reporting success rates between 95%-99% while slightly more faculty members who do create reported success rates between 85%-94%. This might imply digital content use does have a slight impact on students' successful course completion, but these results are inconclusive. However, as mentioned earlier, even one additional

successful student can be considered an improvement and, in regard to funding, improvement equates to additional monies for the institution (Anderson, 2013).

Comparing faculty member groups again showed significant differences in perceptions. Those faculty members whose primary employer was categorized as a small community college, as well as those who are audible and visible more often than not, showed higher agreement with digital content contributing toward student success. Similarly, faculty members who reported intentionally demonstrating verbal and nonverbal immediacy behaviors perceive it contributes to their student's course success. The association was strong and positive between both verbal immediacy with student success and nonverbal immediacy with student success. Ultimately, faculty members who currently do or would like to put forth the effort required to create digital content—just 73.3% of the community college online teaching population as per the findings from this study—perceive this is an effective means of helping their online students reach successful course completion. These findings present an opportunity to educate online faculty members about the benefits a stronger OISP can afford students, supporting Borup et al.'s (2012) findings that "knowledge of effective asynchronous video communication pedagogy appears to be currently limited" (p. 33) as well as Jaggar's (2014) suggestion that a college needs to "systematically cultivate strong levels of instructor presence into its online courses" (p. 22) as a means of maintaining and increasing enrollment.

Still, not all students need to perceive OISP in order to be successful. As noted earlier, some students do not prefer digital content because they may encounter technical difficulties while using it or feel that text communication is sufficient as well as quicker

to skim (Borup et al., 2011, 2013; Hibbert, 2014). Therefore, we can confidently conclude that 54.5% of community college online faculty members are meeting the needs of these students. However, there is no means of ensuring that the students who will not benefit from enhanced OISP are enrolled in the courses taught by faculty members who are not using digital content.

Research Question 4: What are community college faculty members' perceptions of the recognition they receive from their institution for using video technologies to create digital content for use in their online courses?

The fourth research question explored perceived institutional recognition for the effort required to create digital content. Although faculty members reported moderate agreement with their institution valuing these efforts, the results were closer to slightly disagreeing in regard to the institution providing adequate reward or having a fair system of reward. This finding, although nonsignificant, might support Lorenzetti's (2012) assertion that some online faculty members feel their digital work is not appreciated by their institution. As reported, the moderate perceptions of adequate reward for effort, the impact these efforts have on workload, and a fair system to reward effort could also indicate potential reasons faculty members are not creating digital content. Regardless of the extra effort required, many online faculty members might provide these supplemental digital resources for students in text-based learning systems because they consider it a common way to best convey a concept, example, or technique (Kay, 2012).

As stated earlier, community college faculty members usually have a higher teaching load than those prescribed at a research institution (Jenkins, 2012) and therefore may have difficulty finding the time required to create digital content. In regard to institutional recognition, faculty members indicated perceptions of slightly disagreeing

that their institution recognizes the impact their efforts to create digital content has on workload. If college administrators believe their institution does recognize these efforts as Lorenzetti (2012) asserted, the faculty member point of view revealed in this study, while nonsignificant, should provide a useful benchmark for reviewing individual institution's recognition policies and procedures.

The results also indicated additional development opportunities for online faculty members are needed. Faculty members showed slight agreement with both their institution providing professional development to aid their digital content creation efforts and providing resources to support faculty members' efforts to create digital content. In accordance with Shea et al. (2006), the quality of online learning environments can be enhanced through faculty member development when we better understand behaviors that can help students.

Interestingly, adjunct faculty members and those who teach in non-STEM related disciplines reported significantly higher agreement with perceived institutional recognition, yet faculty members within these groups are not creating digital content as frequently as their counterparts. This result might indicate there is a threshold of required effort related to developing and delivering an online course that, once exceeded, impacts perceived institutional recognition. This finding simultaneously supports and contradicts Seaman (2009) who reported developing and delivering online courses was considered faculty members' least recognized activity. It may be that only those faculty members who exceed this threshold perceive less institutional recognition. There were no other significant differences or associations among the demographic groups.

Implications for Practice

Existing research on the use of digital content to enhance OISP has primarily focused on students' perceptions (Borup et al., 2012, 2013; Morris, 2011; Schutt et al., 2009), although York and Richardson (2012) did review the perceptions of six experienced online instructors regarding interpersonal connections with students. The results of the current study provided preliminary insight to community college administrators about the percent and demographics of community college online faculty members who are using video technologies to create digital content, how frequently faculty members are audible or visible in their digital content, and their perceptions of digital content creation. Specifically, perceptions of intentionally demonstrating verbal and nonverbal immediacy behaviors while creating digital content, their use of digital content contributing toward students' successful course completion, and institutional recognition for the effort required to create digital content. This insight affords a better understanding of what members of an online learning community "actually do during online courses and how this behavior relates to their perceptions" (Lowenthal & Dunlap, 2014, p. 27). Ultimately, the study results add to the research and practice knowledge base of the Community of Inquiry framework and may aid institutional success.

"The success of an institution and the success of its students are inseparable" (Levitz & Noel, 2000, p. 1). Therefore online faculty members, responsible for developing and facilitating the students' educational experience in a Community of Inquiry, need to know how to be a productive member of this community (Garrison & Arbaugh, 2007). Faculty members need an awareness of effective strategies for establishing/maintaining/enhancing a strong OISP and an awareness of the contribution

OISP makes toward students' successful course completion. Awareness becomes especially important given current funding models that are based on students' successful course completion (Anderson, 2013) paired with known student drop rates in online community college courses (Jaggars et al., 2013c). This study revealed online faculty members have an awareness of intentionally demonstrating immediacy behaviors through digital content and its subsequent impact on students' successful course completion, yet only half of the faculty members are acting upon that awareness and creating digital content while one fourth of them have yet to operationalize their intentions. This finding is promising for community college online students in light of the Murphrey et al. (2012) study that found online undergraduate students reported a greater preference for immediacy than graduate students. It is also promising for online faculty members. In accordance with Baran and Correia's (2014) professional development framework for online teaching, these faculty groups could mutually support each other. The enthusiasm of faculty members who would like to create digital content may inspire those who already do, and the experience of faculty members who do create digital content could provide mentorship and guidance for those who aspire to create digital content.

In accordance with McCarthy (2009), campus leaders need to examine the perceptions of online instructors within their own institutions in order to determine strategies that motivate all faculty members to enhance online learning. As mentioned earlier, currently 45.6% of online faculty members create digital content to enhance OISP. Approximately 88% are or would intentionally demonstrate verbal and nonverbal immediacy behaviors, 81% perceive these efforts contribute toward successful course completion, while only 65% perceive their institution recognizes the required effort. The

conclusion can be made that there is a perceived lack of institutional recognition for the effort required to create digital content. This provides an opportunity for community college administration to ensure they are satisfying faculty members' needs for institutional recognition by reflecting on and regularly reviewing current recognition procedures, incentives, and monetary rewards associated with the additional effort required by online instructors. Suggested institutional recognition procedures include, but are not limited to, promoting online education as a valued part of the organization's culture, communicating policies regarding intellectual property, and considering digital content use in promotion, tenure, and merit (Lokken & Mullins, 2014; McCarthy, 2009). Additional ways to recognize faculty members' efforts might include evaluating faculty members' professional development needs before, during, and after online course development and delivery as well as providing and encouraging collegial opportunities for online faculty members to share best practices (Baran & Correia, 2014; Jaggars et al., 2013a).

Limitations

The results of this study suggested 45.6% of all online faculty members are creating digital content and that a majority of all faculty members agreed they do or would intentionally demonstrate verbal/nonverbal immediacy behaviors. The majority also agreed that creating digital content to enhance OISP contributes toward students' successful course completion, yet much lower agreement was reported in regard to institutional recognition. However, the following limitations must be considered.

The results of the current study were limited by the small sample size given the data collection time frame. Although the decision to distribute the survey during summer

session was based on an adequate number of faculty members teaching online summer courses and therefore able to participate, it is very likely that increased response rates would have occurred during a regular fall or spring semester. The small sample size may limit the generalizability of the results.

Another limitation was self-reported data. Although faculty members anonymously reported they frequently demonstrate verbal and nonverbal immediacy behaviors in their digital content, an impartial observer may not find that to be true. Likewise, the self-reported student success rate percentages may not be accurate. The study results may be restricted due to the use of these nonobjective measures.

A final limitation was personal bias. The researcher designs and teaches online courses as well as creates digital content. This limitation was addressed by assuring each participant their opinions would be extremely valuable to the research results, and that they were being approached by a researcher who wants to understand more about online faculty members' perceptions of creating digital content. Additionally, all survey responses and statistical analyses results were intentionally viewed with an open mind in order to minimize preconceived ideas about online teaching.

Recommendations for Future Research

Based on the findings from this study, the next steps in extending the research on community college online faculty members' perceptions of creating digital content to enhance OISP is to find out if there are specific techniques or strategies, other than demonstrated immediacy behaviors, that are currently, commonly, and intentionally being used by online faculty members as a means of enhancing OISP. Is asynchronous video an outdated tool, and are there newer technologies that would allow faculty

members and students to communicate more effectively? Does each institution have an established procedure or system for keeping online faculty members up-to-date regarding best practices and new advances that impact OISP, and are online faculty members aware of and using it? Answers to these questions would provide evidence and guidelines for online faculty members to reference as they continue or begin to focus on the importance of OISP.

The results of the current study indicated faculty members perceived their efforts to enhance OISP through the use of digital content do contribute toward students' successful course completion. However, the results further indicated that self-reported course completion rates only partially mirrored these perceptions; slightly more faculty members who create digital content reported success rates between 85%-89% yet almost half of all faculty members reported success rates between 90%-100%. With inconclusive results, and no significant associations between the study variables and reported success rate, additional research needs to be conducted regarding documented course grades and student drop rates in online courses where the instructors are and are not using digital content. This information would aid understanding of the impact digital content has on students' successful course completion.

Some of the recent studies presented in the literature review regarding the use of asynchronous video differ from the current study because they included at least one face-to-face meeting with students during the semester (Borup et al., 2011, 2012). The current study specifically focused on courses that never include such a meeting. An experimental study focusing on the differences between an online course that required occasional face-

to-face meetings and one that did not may provide further insight regarding the impact of immediacy behaviors on students' perceptions of OISP.

Ultimately, expanding our knowledge regarding the online faculty member's dual role of designing and guiding instruction as well as assuring students he or she is an approachable person who cares about them and is involved in the learning process will help all online faculty members design and deliver an optimal online learning environment—a community of inquiry—that promotes students' success.

APPENDICES

Appendix A

Community College Online Faculty Member Digital Content Survey Instrument

UNIVERSITY OF NORTH DAKOTA
Institutional Review Board
Informed Consent Statement

Title of Project: **Community College Faculty Members' Perceptions of Creating Digital Content to Enhance Online Instructor Social Presence**

Principal Investigator: Karen M. Arlien, PhD Candidate, 701-224-5501, Karen.M.Arlien@bismarckstate.edu
Advisor: Dr. Kathy Smart, 701-777-2120, Kathy.Smart@und.edu

Purpose of the Study:
The purpose of this research study is to assess community college online faculty members' perceptions of creating digital content to enhance online instructor social presence specifically related to factors of verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort devoted to creating digital content.

Procedures to be followed:
You will be asked to answer 36 questions on a survey, with the incentive that upon completion, one randomly-selected participant from each of the community colleges will receive a $25 Amazon gift card.

Risks:
There are minimal risks associated with participating in this study. You may have an emotional reaction to voicing perceptions about the use of created digital content in online classes, or may perceive your participation in the study, or lack thereof, as having an impact on your role as a university system employee or colleague. Be assured that participation is optional with no penalties or prejudice.

Benefits:
The benefits which may reasonably be expected to result from this study are increased introspection and understanding regarding this topic. I cannot and do not guarantee or promise that you will receive any benefits from this study.

Duration:
It will take about 5-10 minutes to complete the survey questions.

Statement of Confidentiality:
The survey will be sent anonymously and no IP addresses will be collected. Personal data may be collected during the study by those participants who elect to share their email address for the random prize drawing and shared results. Your name and email address will not be associated with your survey responses in any way, and all identifying information will be kept confidential. The survey results will be reported anonymously in aggregate.

All survey responses that we receive will be treated confidentially and stored on a password protected computer. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging" software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions:
The researcher conducting this study is Karen M. Arlien. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Karen M. Arlien at 701-22-5501 or Dr. Kathy Smart at 701-777-2120 during the day.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279. You may also call this number with problems, complaints, or concerns about the research. Please call this number if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team.

General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants" http://und.edu/research/resources/human-subjects/research-participants.cfm

Compensation:
You will not receive compensation for your participation, but will be entered into a random drawing to receive a $25 Amazon gift card if you include your contact information. One gift card will be awarded at each of the five community colleges.

Voluntary Participation:
You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled.
You do not have to answer any questions you do not want to answer.

You must be 18 years of age older to participate in this research study.

Completion of the survey implies that you have read the information in this form and consent to participate in the research.

Please keep this form for your records or future reference.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

- **You have read the above information**
- **You voluntarily agree to participate**
- **You are at least 18 years of age**

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.

◉ Agree
○ Disagree

Survey

The purpose of this survey is to assess community college online faculty members' perceptions of creating digital content to enhance online instructor social presence specifically related to verbal and nonverbal immediacy behaviors, successful course completion, and recognition from their institution for the effort devoted to creating digital content.

The survey contains 36 questions and should take 5-10 minutes to complete**.** *Thank you for participating*!

Gender	Male	Female
Age	_____	
Ethnicity	(1) White/Caucasian (2) African American/Black (3) American Indian (4) Asian American/Asian	(5) Mexican American/Chicano (6) Puerto Rican American (7) Other Latino (8) Other
Years of Service in higher education	_____	
Employment status:	Full-time	Adjunct
My primary teaching discipline:	_____	
Select your primary community college employer. If you teach for more than one community college, please explain in the accompanying text area.	(1) CC1: _____ (2) CC4: _____ (3) CC2: _____ (4) CC3: _____ (5) CC5: _____	

Answer the following survey questions based on ***one* online course you have recently taught. Ideally, focus on an online course with created digital content.**

Definitions:

- **Created digital content**: any recorded video that you created for use in the *online* course that you taught. It does not include videos created by someone else that you used in this course.
- **Online course**: a course where most or all of the content is delivered online. Typically have no face-to-face meetings.
- **Successful course completion**: the act of a student earning a passing grade in a single, credit-hour based online course.

I create digital content using asynchronous video recording tools such as Tegrity, Camtasia, Jing, etc. (select one) ** *displays remaining questions modified to "would"*	(1) I DO create digital content (2) I do NOT create digital content but WOULD LIKE TO ** (3) I do NOT create digital content **	
I use (or would use) the digital content I create for online courses to …	(1) generate/introduce discussion topics (2) show worked examples (3) replicate an on-campus lecture (4) demonstrate a technique, procedure, or process (5) provide feedback to students (6) other:	Never Sometimes Usually Always Never Sometimes Usually Always Never Sometimes Usually Always Never Sometimes Usually Always Never Sometimes Usually Always Never Sometimes Usually Always
I record (or would record) my voice in the digital content I create (select one)	(1) Always (2) More than half of my videos (3) Less than half of my videos (4) Never	
I record (or would record) my face and/or body in the digital content I create (select one)	(1) Always (2) More than half of my videos (3) Less than half of my videos (4) Never	

Please rate each of the statements below by circling the appropriate option.		**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
All questions are currently worded for participants who select "do create digital content" above. They will be slightly reworded for participants who select "do not create digital content".							
	While creating my digital content, I intentionally … *(heading for q. 1-12 only)*						
Verbal	1. share personal examples with my students	**1**	**2**	**3**	**4**	**5**	**6**
	2. refer to the class as "ours" or what "we" are doing	**1**	**2**	**3**	**4**	**5**	**6**
	3. invite students to contact me or meet with me if they have questions	**1**	**2**	**3**	**4**	**5**	**6**
	4. use humor	**1**	**2**	**3**	**4**	**5**	**6**
	5. praise the students' work, actions, or comments	**1**	**2**	**3**	**4**	**5**	**6**
	6. express emotion (excitement, frustration, concern, etc.)	**1**	**2**	**3**	**4**	**5**	**6**

Nonverbal	7.	smile	**1**	**2**	**3**	**4**	**5**	**6**
	8.	look directly toward the camera often	**1**	**2**	**3**	**4**	**5**	**6**
	9.	Use my hands and arms to gesture	**1**	**2**	**3**	**4**	**5**	**6**
	10.	am animated when I talk	**1**	**2**	**3**	**4**	**5**	**6**
	11.	have a lot of vocal variety	**1**	**2**	**3**	**4**	**5**	**6**
	12.	have a relaxed body position	**1**	**2**	**3**	**4**	**5**	**6**
Successful Course Completion		**In order to contribute toward my online students' successful course completion …** *(heading for q. 13-18 only)*						
	13.	I intentionally convey my personality through the digital content I create	**1**	**2**	**3**	**4**	**5**	**6**
	14.	it is important for me to be visible and/or audible in the digital content I create	**1**	**2**	**3**	**4**	**5**	**6**
	15.	I intentionally use the digital content I create as a way to help my students perceive me as a real person	**1**	**2**	**3**	**4**	**5**	**6**
	16.	I intentionally use created digital content to communicate with my students as if we were face-to-face	**1**	**2**	**3**	**4**	**5**	**6**
	17.	I intentionally use created digital content as a way for my students to get to know me better	**1**	**2**	**3**	**4**	**5**	**6**
	18.	My students are less likely to drop out of class when they perceive me as a real person through digital content I create	**1**	**2**	**3**	**4**	**5**	**6**
	19.	What **percentage** of the students in this particular online course completed it successfully?	(slider scale 0 - 100%)					
Institutional Recognition		**My community college …** *(heading for q. 20-25 only)*						
	20.	values my effort to create digital content	**1**	**2**	**3**	**4**	**5**	**6**
	21.	adequately rewards me for my effort to create digital content	**1**	**2**	**3**	**4**	**5**	**6**
	22.	provides professional development to aid me in creating digital content	**1**	**2**	**3**	**4**	**5**	**6**
	23.	recognizes the impact my effort to create digital content has on my workload	**1**	**2**	**3**	**4**	**5**	**6**
	24.	has a fair system in place to reward the effort I invest in creating digital content	**1**	**2**	**3**	**4**	**5**	**6**
	25.	provides resources to support my effort to create digital content	**1**	**2**	**3**	**4**	**5**	**6**

If you would like to receive a copy of the study results and enter the random drawing for one $25 Amazon gift card to be awarded at each of the five community colleges, please enter your name and email address. Your name and email address will not be associated with your survey responses in any way, and all identifying information will be kept confidential.

Name:

_____

Email address:

_____

Appendix B

Variable Names and Values used in Survey Data Analyses

Variable Name	Variable Description and Values	
gender	(1) Male, or (2) Female	
age	Age in years	
ethnic	(1) White/Caucasian (2) African American/Black (3) American Indian (4) Asian American/Asian	(5) Mexican American/Chicano (6) Puerto Rican American (7) Other Latino (8) Other
yrServ	Years of service in higher education	
status	(1) Full-time, or (2) Part-time	
discipline	Primary teaching discipline	
STEM	(y) STEM field (science, technology, engineering, math), or (n) non-STEM field	
primaryCC	Primary community college employer (1) CC1, (2) CC4, (3) CC2, (4) CC3, or (5) CC5	
secondaryCC	Text box: faculty enter additional community college they teach for	
createDC	Faculty (1) does create digital content, or (2) does not but would like to create digital content, or (3) does not create digital content	
useDCdiscuss	Faculty do/would use digital content to generate/introduce discussion topics (1) Never, (2) Sometimes, (3) Usually, or (4) Always	
useDCexample	Faculty do/would use digital content to show worked examples (1) Never, (2) Sometimes, (3) Usually, or (4) Always	
useDClecture	Faculty do/would use digital content to replicate an on-campus lecture (1) Never, (2) Sometimes, (3) Usually, or (4) Always	
useDCdemo	Faculty do/would use digital content to demonstrate a technique, procedure, or process (1) Never, (2) Sometimes, (3) Usually, or (4) Always	
useDCfeedback	Faculty do/would use digital content to provide feedback to students (1) Never, (2) Sometimes, (3) Usually, or (4) Always	
useDCother	Faculty do/would use digital content for other purposes (1) Never, (2) Sometimes, (3) Usually, or (4) Always	
useDCotherText	Text box: faculty enter additional uses for digital content	
useVoice	Faculty do/would record their voice in digital content they create (1) Always, (2) More than half the videos, (3) Less than half the videos or (4) Never	
useBody	Faculty do/would record their face and/or body in digital content they create (1) Always, (2) More than half the videos, (3) Less than half the videos or (4) Never	
The responses for each of the following questions are based on one particular online class. Values are: (1) Strongly Disagree, (2) Disagree, (3) Slightly Disagree, (4) Slightly Agree, (5) Agree, or (6) Strongly Agree		
vQ1Share	Faculty do/would intentionally use digital content to share personal examples	
vQ2Include	Faculty do/would intentionally use digital content to refer to the class as “ours” or what “we” are doing	

vQ3Invite	Faculty do/would intentionally use digital content to invite students to contact them or meet with them if they have questions
vQ4Humor	Faculty do/would intentionally use digital content to express humor
vQ5Praise	Faculty do/would intentionally use digital content to praise students' work, actions, or comments
vQ6Emotion	Faculty do/would intentionally use digital content to express emotions
nvQ1Smile	Faculty do/would intentionally use digital content to smile
nvQ2Look	Faculty do/would intentionally use digital content to look directly toward the camera often
nvQ3Gesture	Faculty do/would intentionally use digital content to gesture with hands and arms
nvQ4Animated	Faculty do/would intentionally use digital content to be animated when talking
nvQ5VocalVar	Faculty do/would intentionally use digital content to express a lot of vocal variety
nvQ6Relaxed	Faculty do/would intentionally use digital content to show a relaxed body position
sccQ1Convey	Faculty do/would intentionally use digital content to convey personality
sccQ2Visible	Faculty do/would feel it is important to be visible and/or audible in digital content
sccQ3Real	Faculty do/would intentionally use digital content to help students perceive them as a real person
sccQ4SimF2F	Faculty do/would intentionally use digital content to replicate face-to-face communication
sccQ5KnowMe	Faculty do/would intentionally use digital content as a way for students to get to know them better
sccQ6LessDrop	Faculty do/would believe their students are less likely to drop out of class when they perceive them as a real person through digital content
sccQ7Rate	Percentage (0-100%) of students who successfully completed this particular online course
recQ1Values	My community college values my effort to create digital content
recQ2Rewards	My community college adequately rewards me for my effort to create digital content
recQ3PD	My community college provides professional development to aid me in creating digital content
recQ4Workload	My community college recognizes the impact my effort to create digital content has on my workload
recQ5Fair	My community college has a fair system in place to reward the effort I invest in creating digital content
recQ6Resources	My community college provides resources to support my effort to create digital content
Grouping variables	
verbal	Verbal subscale collective mean values
nonverbal	Nonverbal subscale collective mean values
success	Successful course completion subscale collective mean values
recognition	Recognition subscale collective mean values
sizeCC	Primary employer group (1) large primary community college employer (> 99 faculty) (2) small primary community college employer
doDoNot	(1) do create digital content, or (2) do not create digital content
voiceOften	(1) include voice in digital content always or more than half, or (2) include voice in digital content less than half or never
bodyOften	(1) include body in digital content always or more than half, or (2) include body in digital content less than half or never
yrServGrp	(1) 0 – 9, (2) 10-19, or (3) 20+ years
ageGrp	(1) 26-39, (2) 40-49, or (3) 50-69 years
successGrp	(1) 91-100, (2) 81-90, or (3) 0-80 percent of students succeeded in the course
outlier	(1) response is incomplete in regard to subscales or digital content creation

Appendix C

Teaching Discipline Categorization

STEM	Non-STEM	Other/not categorized
Architectural drafting	Accounting	On Campus
Biological Sciences	Agricultural Economics	Instructional Designer
Biology	Business	
Biology/agronomy	Business Education	
Chemistry	College Strategies (Freshman readiness course)	
CIS	COMM and Business	
Computer Information Systems	communication disorders	
Computer Science	Communication/Public Speaking	
Computer Technology	Communications	
Computers and Office Technology	Criminal Justice	
Developmental Math	Developmental Reading and Writing	
Environmental Education	Electric Power	
Information Technology	Electrical Transmission System Technology	
Math	Electrical Utility Industry	
Mathematics	electronics	
Medical	Energy	
Microbiology	Energy Technology	
Nursing	English	
Nutrition	Health & wellness/ Business	
Science	History	
Technology	History and Political Science	
	History/Social Science	
	HPER	
	Instrument Tech	
	Medical Coding	
	Music	
	Occupational Therapy Assistant	
	Political Science	
	Psychology	
	Social and Behavioral Sciences	
	Sociology	
	Technical - Energy	

Note. Exact duplicate answers were removed, but obviously redundant categories were included to emphasize the diverse responses collected.

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