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The Use of Asynchronous Video Communication to Improve Instructor Immediacy and Social Presence in a Blended Learning Environment

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ABSTRACT

Instructors in a blended learning format struggle to find an effective balance between face-to-face instruction that is high in fidelity and online instruction that is high in flexibility. This chapter presents three cases where asynchronous video communication was used to help offer students instruction high in fidelity and flexibility. Although the medium for sharing asynchronous video varied between the three cases, findings indicate that video was a useful tool to improve instructor immediacy and/or social presence with a minimum amount of face-to-face instruction. The instructors in all three cases saw asynchronous video communications as an effective way to communicate with students and the majority of students responded positively to asynchronous video communications.

Key words: Blended Learning, Hybrid Course, Immediacy, Social Presence, Media Richness, Asynchronous Video, VoiceThread

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The Use of Asynchronous Video Communication to Improve Instructor Immediacy and Social Presence in a Blended Learning Environment

INTRODUCTION

A report by the United States Department of Education's National Center for Education Statistics (NCES) (2008) found that over 90% of public colleges and universities offered distant learning courses during 2007. University administrations have used online education as a cost-saving tool, and it also proves to be beneficial to instructors and students who require an amount of flexibility and access that cannot be found in a face-to-face classroom. However, online education lacks much of the quality of interaction and pedagogy found in a face-to-face environment and many are turning to blended learning model (Graham, Allen, & Ure 2005). Graham (2006) defined blended learning as any community of learning that combines face-to-face instruction with computer-mediated instruction. In an attempt to improve online education, a growing number of public colleges and universities are combining the two modes of instruction. In the same report by the NCES (2008) it was documented that nearly half of four year public colleges and universities offered blended learning courses. That percentage rises to 66% when examining two-year public colleges.

In addition to increasing cost effectiveness, flexibility, and access, Graham (2008) also cited that blended learning facilitates more effective pedagogical practices by increasing active learning, cooperative learning, and learner-centered strategies. Rice, Starr, and Spencer (2005) reported that faster Internet along with the availability of

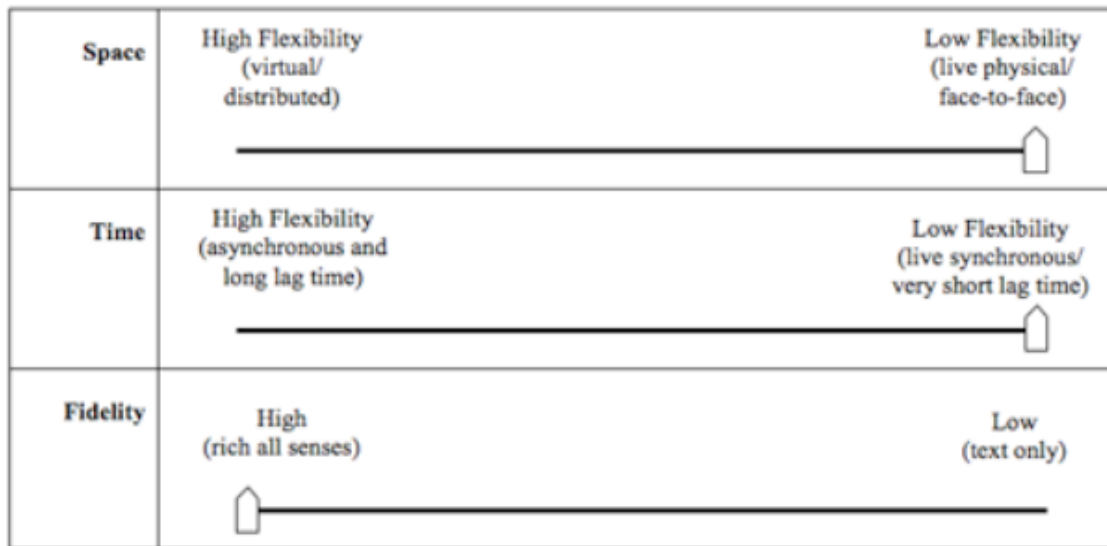
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hardware and software has allowed blended learning environments to more efficiently incorporate a “media cornucopia” (p. 216) into learning. Rice et al. acknowledges much of the same media can also be incorporated into face-to-face classrooms. However, it is the time and space flexibility of a supportive blended learning environment that can foster more in-depth self-learning. Asynchronous group communications may also include a larger diversity of viewpoints because the nature of the discussion allows time for more people to participate including shy or anxious students who normally do not participate in face-to-face group discussion (Graham, 2006; Rice Starr, & Spencer, 2005).

Online Communications in a Blended Learning Environment

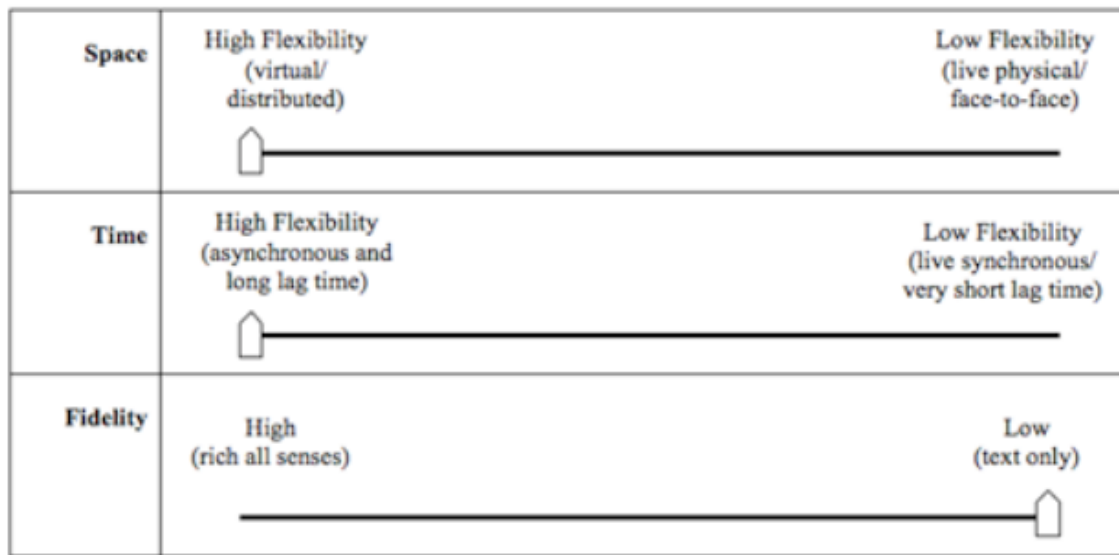
The nature of online education limits the forms and quality of personal interactions a student has with instructors and peers. All communities of learning have dimensions of interaction in space, time, and fidelity. A face-to-face learning environment requires student and instructor to share the same physical space; however, it also allows synchronous communication where ideas and information can be shared with a very short lag time. Also, in this environment there is a high level of fidelity where the senses of sight, audio, touch, and smell are active in the learning process (see Figure 1).

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Figure 1. *Dimensions of interaction in a face-to-face environment.*

In contrast, in an online environment the student and instructor do not need to share the same physical space. Similarly, the time dimension of interaction is also commonly distributed through the use of asynchronous communication. These qualities of distributed interactions in both time and space are what give online education the flexibility that has made it so popular with instructors and students. However, interactions found in an online learning environment have a low level of fidelity with most interaction being text based (see Figure 2). Both models of instruction have their affordances and constraints with face-to-face instruction providing a high level of fidelity but also providing little flexibility and online instruction providing a high level of flexibility with a low level of fidelity (Graham 2006).

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Figure 2. *Dimensions of interaction in a text based online environment.*

By combining face-to-face and online instruction, the level of fidelity will increase as compared to online only learning environments. However, the more face-to-face class time a blended learning course employs the less flexibility it will have. As a result the level of fidelity in a blended learning course can be raised only so much through face-to-face instruction and still retain the flexibility that has made online education popular. Blended learning instructors should also look to improve online interactions with students as a way to increase the overall fidelity of their course. Faster Internet and the advent of Web 2.0 technologies has made the Internet highly interactive, yet much of the interaction found in online learning communities has low fidelity and remains text and content based (LaRose & Whitten, 2000). However, the potential for more meaningful instructor-student and peer-to-peer interaction has dramatically improved. Gunter (2001) commented, “The Internet has shifted from being a

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communication mode of text-only to a powerful two-way multimedia communication system with applications that have the potential to revolutionizing teaching and training” (p. 196).

Instructor Immediacy and Social Presence

Learning in a text based online environment can also create a barrier to establishing a strong sense of instructor immediacy and social presence. Mehrabian (1969) originally defined the construct of immediacy as “those communication behaviors, some visual, other vocal that enhance closeness to and non-verbal interaction with another” (p. 213). These nonverbal communication behaviors can include eye contact, body posture, and facial expression, all of which have the ability to give students a sense of closeness to the instructor. Gorham (1988) added that humor, sharing of personal stories, and encouragement can also improve instructor immediacy. Instructor immediacy has also been found to have a positive effect on student motivation (Christensen & Menzel, 1998; Christophel, 1990; Christophel & Gorham, 1995). Although the importance of instructor immediacy is well documented, online courses have remained mostly absent of the nonverbal communication that naturally occurs in a classroom. Although, text-based online courses can develop instructor immediacy through the use of humor, sharing of personal stories, and encouragement they cannot include visual and vocal cues.

Rourke, Anderson, Garrison, and Archer (1999) claimed the roots of the construct of social presence can be found in the concept of immediacy. Social presence has been defined as the ability of learners to socially and effectively convey themselves as “real

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people” with emotions, feelings, moods, and senses of humor (Garrison, Anderson, & Archer, 2000; Rourke et al., 1999). Although, Garrison et al. (2000) recognize that social presence can be established in a text-based course, they also believe that the lack of visual cues can be a barrier to establishing a strong social presence. However, they also recognize that asynchronous text-based communication has some advantages over face-to-face instruction, such as providing time to reflect on what has been said and to craft thoughtful responses. Rovai (2002) also acknowledged that it is harder for students to develop social presence in an online learning environment as compared to face-to-face instruction because fewer social cues are present. He goes on to suggest student success in online courses would increase if instructors worked to reduce students’ sense of isolation by helping them make connections with peers.

Using the Media Richness of Asynchronous Video

Students and instructors in a low fidelity text based environment can develop social presence (Garrison et al. 2000; Rourke et al., 1999; Rovai, 2002) and instructor immediacy (Gunter, 2007; LaRose & Whitten, 2000). However, Ice, Curtis, Philips, and Wells (2007) indicate that social presence and instructor immediacy may more easily and effectively be established when a high fidelity media is used. As instructors in an asynchronous online course, Ice et al. (2007) felt that they had done everything that they could to develop personal relationships with their students given the constraints of text based communication. They introduced audio feedback into their course and found it to be more effective in conveying nuance as compared to the low fidelity text based feedback. They further reported that the audio feedback increased students’ perception of

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the instructor as caring and “revealed an overwhelming student preference for asynchronous audio feedback as compared to traditional text based feedback” (p. 18).

Media richness may help to explain why Ice et al. (2007) found audio feedback to be more effective as compared to text. Rice et al. (2005) defined media richness as “the extent to which a medium can support language variety, feedback, nonverbal cues, and learning” (p. 220). Daft and Lengel (1986) originally ranked the richness of communication media and placed face-to-face at the top and written documents near the bottom just above numeric documents. They saw face-to-face instruction as the richest medium of communication because of its ability to give clear and immediate feedback and the number of verbal and non verbal cues it contains. They also wrote that the more media richness the more efficient complex information can be conveyed and understood. Therefore, simple straightforward information can often be understood more efficiently through a low fidelity medium while more complex information is better communicated via a high fidelity medium. Overbaugh and Casiello (2008) reported that when given complex collaborative tasks students in a distributed learning environment will gravitate to high richness media if they are made available.

Griffiths and Graham (2009a) suggested that the blended learning model coupled with the media richness found in asynchronous video communication may be able to bridge the gap between distributed and face-to-face communication and provide a strong sense of instructor immediacy and social presence while still maintaining a high level of flexibility.

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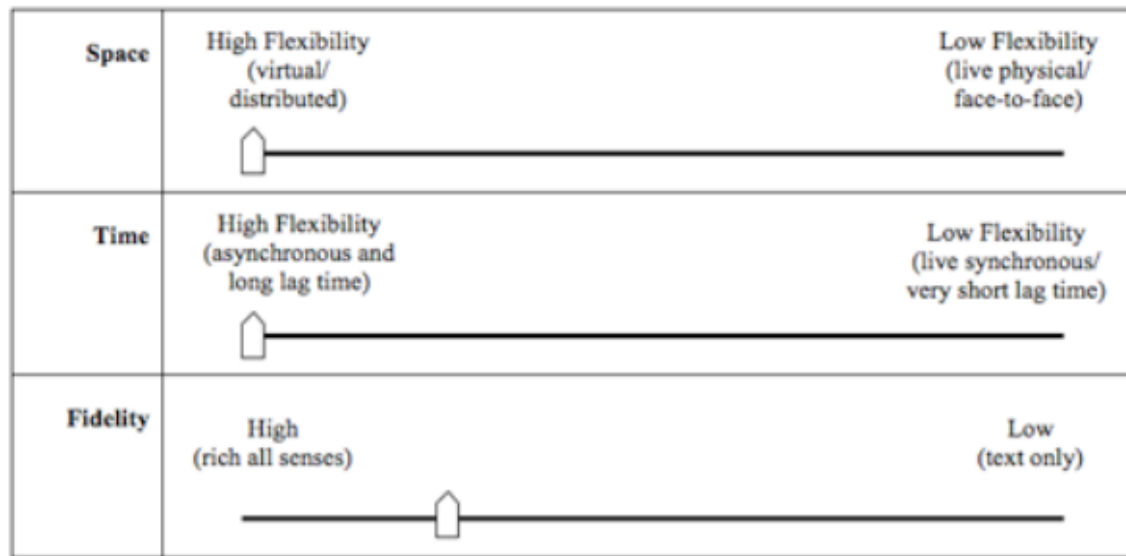
They further add that although the rich media available through synchronous video provides immediate feedback and geographical flexibility, it does not provide flexibility in time because—just as in face-to-face instruction—it requires both instructor and student to designate a common time for instruction. In contrast, asynchronous communication lacks immediate feedback yet still provides the geographical flexibility, while adding to it the time flexibility that many students require. Through the use of an asynchronous video communication tool a blended learning course can efficiently establish a strong sense of immediacy and social presence with a minimum amount of face-to-face classroom instruction (see Figure 3). This allows instructors to maintain the high level of flexibility available in a distributed, asynchronous course while improving the fidelity of the communication occurring in the course (see Figure 4).

Figure 3. *Blended learning models to achieve a high level of flexibility and fidelity.*

Blended learning high in flexibility (minimal face-to-face interaction)	<div> <div>Face-to-Face Instruction</div> <div>Text Based Online Instruction</div> </div>
Blended learning high in fidelity (increased amounts F2F interaction)	<div> <div>Face-to-Face Instruction</div> <div>Online Instruction</div> </div>
Blended learning high in fidelity and flexibility	<div> <div>Face-to-Face Instruction</div> <div>Online Instruction With Regular Asynchronous Video Communication</div> </div>

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Figure 4. *Dimensions of interaction in an asynchronous video based online environment.*



CONTEXT

Several years ago instructors teaching the educational technology courses (IPT286/287) for preservice public school instructors at Brigham Young University (BYU) began searching for solutions to instructional challenges that they were facing that would simultaneously allow for increased student flexibility as well as maintain the BYU emphasis on high quality instructor-learner interaction in undergraduate courses. A blended learning approach that combined face-to-face with online learning experiences seemed like a good approach. A blended learning structure was created that required students to attend class face-to-face the first and last weeks of the semester with learning taking place online during the other twelve weeks of the semester. Students in the blended learning sections also had the option of attending face-to-face classes in a traditional section any time they wanted.

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With this blended structure the flexibility requirement was achieved but instructors felt that they wanted something to help them connect more closely with the students than they felt text-based email or discussion boards would allow. As a result instructors began exploring the use of asynchronous video as a means of communication with students during the online portions of the class. The feeling was that asynchronous video would maintain a high level of flexibility while simultaneously allowing the learner and instructor to communicate in a richer way.

Several different tools and approaches were explored, as described by Griffiths and Graham (2009a, 2009b, & 2010 in press) and Velasquez, Graham, and McCollum (2009). In this chapter we will describe three cases that highlight the different approaches we used and what we learned about how the affordances of different asynchronous video technologies impacted student and instructor perceptions of their relationships in their blended courses. Table 1 describes the three cases that we will describe in the rest of the chapter. These cases include our use of Facebook, VoiceThread, and a video blog created by BYU's Center for Teaching and Learning. Griffiths' (2010) dissertation outlines several general principles under the title Asynchronous Video Learning Model (AVLM) that were developed to help guide instructors using asynchronous video in their blended learning courses.

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Table 1. *Three cases of a technology integration course using asynchronous video communications.*

Cases	Semester	Description of Video Communication
Case 1: Facebook	Fall 2008	Instructor and students shared weekly private video communication through a messaging feature within Facebook. The instructor also created weekly orientation videos that were placed on the course group page.
Case 2: VoiceThread	Fall 2009	Students commented weekly on content related topics using the online program VoiceThread. The instructor also created weekly orientation videos that were placed on the course wiki page.
Case 3: Video Blog	Winter & Fall 2009	Each student was given access to a group and an individual video blog. Students participated in several group content related discussions. A student's individual blog was used primarily to host private instructor-student conversations.

In our context, students who chose to participate in the blended learning sections were required to either purchase a webcam or to use a webcam located in a school computer lab for regular video-based communication during the semester. The remainder of the chapter will include a discussion of the affordances, strengths, and weaknesses of the tools we have used for sharing asynchronous video. This chapter will also share experiences and student reactions from those blended learning courses where asynchronous video was used and provide guidelines and suggestions to those who wish to incorporate asynchronous video communications into blended learning courses.

Case One: Facebook Video Messaging

One of our first explorations with the use of asynchronous video in blended courses involved the use of Facebook. We had considered using several stand-alone video messaging tools, like TokBox (<http://www.tokbox.com>). We decided to use Facebook because it was a tool already being used by almost all students enrolled in the

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IPT287 course and it also had video messaging already built right into its features (although most of the students had never used that feature of Facebook previously).

The IPT287 instructor created a Facebook group that included all class-enrolled students during the Fall 2008 semester. The instructor created weekly videos that were then posted in a public place on the Facebook group page for all students to view. The weekly video provided general feedback regarding patterns of students performance during the previous week, addressed common student questions and issues, and oriented them to current assignments. The Facebook messaging feature was used by students to record and send the instructor a weekly private video message. These weekly video messages addressed each student's perceptions of the week's assignment, reported on individual progress in completing the assignment, and raised any concerns or difficulties they were experiencing. Typically, student videos were one to three minutes in length. The instructor then replied individually with a video response to each student providing individualized feedback and encouragement (see Figure 5). Several weeks during the semester technical problems on Facebook prevented videos from being sent, and during these weeks students sent the instructor a text-based message in Facebook.

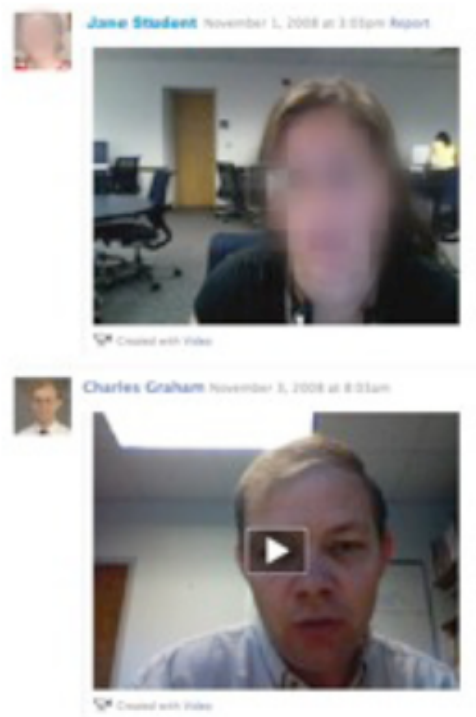
The instructor found that with a class of 40-50 students it took 2-3 hours a week to communicate with each student personally, which was approximately the amount of time he would have spent in class for a traditional face-to-face section. Students who were struggling typically sent longer video messages that required longer, more detailed feedback. Students who were performing well required less personal time but still received feedback and encouragement for the good work they were doing. In this model,

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students had less overall exposure (in raw minutes) to the instructor than they would have had in a face-to-face environment. However, the nature of that exposure changed to a more personal student-instructor relationship. The video communication was motivating for the instructor because it provided a feedback loop that he did not have before. He was able to see the excitement in students' faces when things were going well and the frustration when they were struggling. This enabled him to respond in a more individualized way to provide encouragement as well as more intense technical help for those who needed it most. While many students appreciated the personal attention, the instructor felt that there were a number of students in the class who didn't really want a more personal relationship with the instructor in the course. These students were predominantly efficiency oriented in their approach to their studies. These students valued the efficiency and convenience of text-based communication over the added fidelity the video provided.

Figure 5. *Sample Facebook communication used to hold weekly instructor-student conversations.*

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Following the semester, students provided feedback regarding their perceptions of the usefulness of video messaging during the course. Students were asked to respond to the following question: “What did you value and/or dislike about communicating with the instructor using video?” Some students expressed the perception that text emails could have been adequate without the added cost of purchasing a webcam. However, the majority of students valued the regular video messaging and several student comments show the communication was successful in establishing instructor presence. These comments included:

- “I liked it a lot actually. It made the instructor seem more 'real I guess i would say.”

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- “I thought it was a great way to QUICKLY stay in touch and much more personal”
- “It was good to know that if I needed help, I could get it and it wasn't just emails, I was actually able to see the professor and get adequate feedback.”
- “I thought it was nice that the video communication was so personalized and it made me feel like I could ask any question and it would be answered, ...”
- “I valued it because he was so good at communicating. If I [had] any questions or concerns he always answered quickly.”
- “It was nice to get feedback and see what the instructor thought. It also helped me know that he cared if I was having difficulties.”
- “It was nice to still feel connected to an actual professor, and it allowed prompt feedback if I needed help or had a question.”
- “I liked it a lot actually. It made the instructor seem more 'real' I guess i would say.”

One student said “I am not used to such personal communication with a teacher and it almost makes me uncomfortable...I am not sure why I feel that way.” indicating that she was receiving more personal communication from the instructor than she normally received in a more traditional face-to-face instruction. Although the weekly video communication was intended to improve instructor immediacy, one student also expressed it improved her social presence in the course, “I liked that I felt like I was part of the class and able to express my opinions and talk about any concerns or things I was learning.”

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Students were also asked to evaluate the use of Facebook as an academic communication tool. Students liked using a familiar tool that they were already regularly using and students who did not like it usually cited privacy concerns or wanting to keep their social life separate from their academic life. From the instructor perspective, Facebook provided quick and easy access to the students. Students seemed to get messages more quickly and respond more promptly than he experienced with regular email. The instructor really appreciated the asynchronous video aspect of the messaging because it allowed him to get to know the students by face better. Video messages also allowed him to get a sense for the excitement or frustration that a student was experiencing in the class and address that directly in the communications with the student.

Case Two: VoiceThread Video Commenting

During the Fall 2009 semester of IPT287, VoiceThread was used in an attempt to increase social presence and to facilitate weekly conversations among students in the blended learning section. VoiceThread is an online program designed to promote asynchronous discussions around media such as pictures and video. When creating a VoiceThread, one or multiple pictures or video clips can be uploaded and made public, thus allowing any VoiceThread member to comment, or they can be kept private so only invited members have the ability to respond. VoiceThread allows several different types of comments, including video, audio, and text. As a way to lower anxiety, comments can be previewed prior to posting on the VoiceThread and can also be deleted after they have been posted. Similarly, the creator of the VoiceThread has the ability to moderate all

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comments made on the VoiceThread. As comments are made, they are identified by a small profile picture and placed around the VoiceThread in descending sequential order (see Figure 6). Viewers can then click on selected videos to watch or simply press play and watch all the comments in the order they were given. A constraint of VoiceThread is that it does not show the thread of the discussion.

Figure 6. *Sample VoiceThread used to hold weekly conversations on content related topics.*



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The first two authors of the chapter co-taught the course. After the first face-to-face meeting of the semester, students followed a weekly online agenda. Most weeks, a brief video was created by the instructor to introduce the class to the week's activities and orient them to parts of the unit that they should pay particular attention to. An important part of each week was the students' participation in the VoiceThread discussion. On the first day of the blended learning course students were introduced to VoiceThread and organized into one of six VoiceThread groups containing six to nine students. During the 14 week semester each group was asked to respond to eight VoiceThreads. (Students were not required to participate in VoiceThread discussions during their off campus practicum experience because the face-to-face section was not required to attend class.) The instructor uploaded an image to each VoiceThread containing the discussion topic. Most VoiceThreads also included a video comment from the instructor providing the students with additional instructions on the discussion topic. Most topics focused on student perceptions and the possible applications of technology tools learned in class. VoiceThreads were then embedded into a class wiki and all students were required to record and post video responses using a webcam.

The instructor enjoyed listening to students' thoughts and he found himself checking for new comments several times during the course of a week's conversation. The instructor was also surprised to find how quickly he was able to learn the blended learning students' names and recognize students while on campus. He was able to learn the names of the blended learning students and felt closer to the blended learning students than he did to the students in the face-to-face section who he met with each week.

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However, to avoid dominating the VoiceThread conversation the instructor only participated in two of the eight conversations (once to better focus the conversation topic and the other to summarize and thank students for their thoughts and comments).

The instructor also found the richness of video comments helped to better assess student understanding and feelings on class topics. Facial expressions and student tone of voice helped the instructor to recognize student frustration and confusion stemming from students' inability to see how learned technological skills could be used with young students. This allowed the instructor to adjust future VoiceThread topics to include video examples of actual technology use in early elementary grades, thus creating a better understanding of possible applications. Student facial expression and tone of voice also clearly showed when students were excited. These emotions may have been missed by the instructor in a purely text-based conversation.

One example where the media richness of video helped the instructor to identify student confusion came in the third week of instruction. The instructor wanted to help students to recognize the technology, content, and pedagogy used in a particular example of classroom instruction. He found a video on YouTube created by a school district showcasing their technology use. Although a large majority of the video showed technology use in an elementary setting, only a few showed the use of technology in the early elementary grades. That week's VoiceThread required students to view the video and in their comment cite a specific example and identify the technology, content, and pedagogy used and evaluate its effectiveness. Two students in the Early Childhood

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Education (ECE) group expressed concerns regarding technology use in early grades.

The following is the transcript of one of the student's comment:

After watching the Youtube video I had mixed feelings on it. I think that it's a good idea for the older grades. I'm in the ECE major so I don't know how effective it would be with the younger children. I think I could [pause] You know the third graders or the second graders might have a good time with it but it's definitely I think for the older kids. But it is very beneficial in the classroom because it opens up so many more resources than a textbook does because you are able to search in all these different places in the web and the students are able to find so much more information that way. So I think that is really cool that the teacher does that with her class and they seem to really enjoy it. So I think that it is a really good idea for some classrooms and certain settings and for certain grades of course.

Although this transcript shows some level of inability on the part of the student to visualize technology use in early grades, it was the student's nonverbal cues in the video including avoiding looking into the camera and tone of voice that showed her level of discouragement and lack of satisfaction with the assignment. Although the instructor did not respond directly to the student's comment, he decided to include an example of young children creating a digital storytelling project (a technology the class was currently learning) in the next week's VoiceThread. The following is a transcript of her comment to that week's VoiceThread:

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Ok, I really enjoyed watching the video of all the children doing the different digital storytellings and I guess I assumed that this project would be more for the older grades, maybe fourth and up. But watching this I realized that even someone in preschool could do this because all they have to do is draw the picture and have the teacher help them with the sound or speaking or whatever they are going to do.

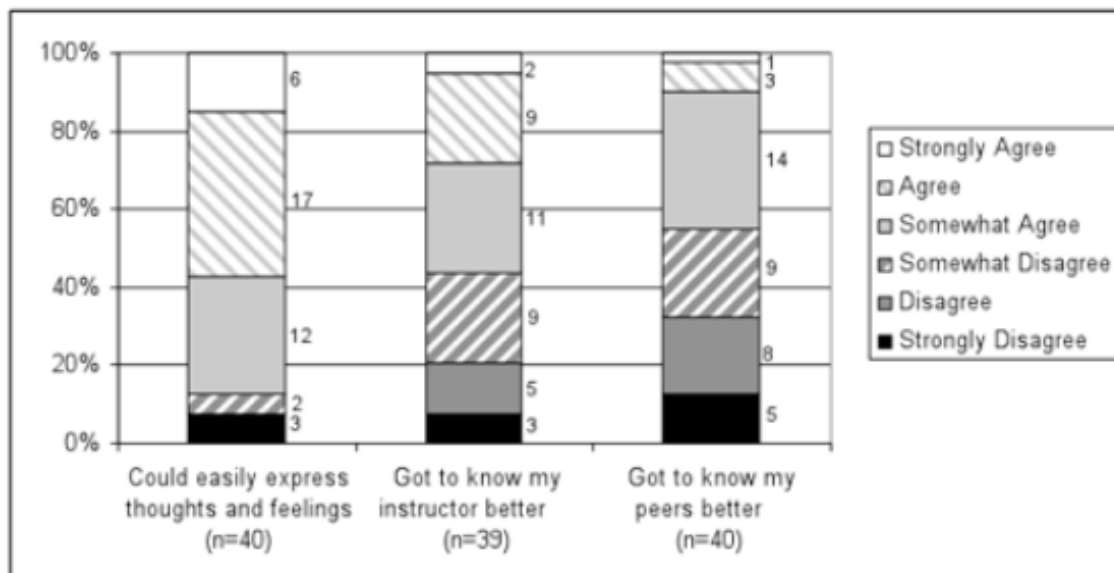
Although the transcript indicates that the student was better able to apply her learning from the course to future teaching settings, it was the student's nonverbal cues that showed her excitement and improved satisfaction with the assignment. Unlike the previous student video comment, during this comment the student made prolonged eye contact through the webcam and smiled often. Her tone of voice also changed from the previous comment reflecting her excitement. The student's level of discouragement and excitement could have been easily missed if it weren't for the non verbal cues contained in the media richness of the video.

Following the semester, students provided feedback regarding their perceptions of the usefulness of using the video communication during the course. Using a six-point Likert scale, students were asked to respond to the following statement, "I could easily express my thoughts and feelings using VoiceThread." Of the 40 respondents, 35 responded affirmatively with six strongly agreeing, 17 agreeing, and 12 somewhat agreeing. Using the same scale, students were also asked to respond to the statement, "I feel like I got to know my instructor better because of VoiceThread." Although the instructor took more of an administrative role and did not actively participate in the

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discussion, 22 of the 39 students responded affirmatively with two strongly agreeing, nine agreeing, and 11 somewhat agreeing. However, students perceived VoiceThread video communication as less useful in getting to know their peers. Although students reported watching an average of 2.3 peer comments each week, when asked to respond to the statement, “I feel like I got to know my peers better because of VoiceThread.” 22 of the 40 students responded negatively with five strongly disagreeing, eight disagreeing, and nine somewhat disagreeing (see Figure 7). One student explained, “I thought it was interesting and a good use of technology. I just don't feel like I ‘got to know’ people better by using it because of the content we were reporting on. It's not really ‘get to know you’ type content.”

Figure 7. Student responses to survey items regarding student perception of video communications using VoiceThread.



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Students were also asked the open-ended question, “What did you value and/or dislike about using VoiceThread?” Most students showed a positive perception of the use of VoiceThread. Positive comments focused on the ease sharing thoughts and ideas and the chance to hear peer comments without having to attend class. These comments included:

- “It was a good way to keep connected with my class, even though I did not see them on a weekly basis.”
- “I liked hearing ideas from my peers and being able to do it on my own time at my own pace.”
- “I thought it was pretty easy to use, and it was nice that the instructors were able to see the students actually make the comments.”
- “I liked being able to put in my two cents without the pressure of being in front of the class.”
- “I liked that it was easy to use and it was easy to express my thoughts rather than writing them.”

Although there was evidence that students were watching their peers’ video comments, the discussion was not threaded to alert students that a peer had elaborated or responded to their comment. As a result some students had the perception that no one was listening to their comments and the discussions were busy work. Others had technical problems that added to the time that it took to make a comment which seemed to lessen VoiceThread’s perceived value. One student commented, “I had problems with getting the voice thread to work every week (probably my webcam). I do not like

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recording myself, and I feel like I would have been able to express myself better face-to-face or through text.”

The following semester (Winter 2010) the instructor continued to use VoiceThread. Unlike the previous semester, the first VoiceThread gave students the opportunity to introduce themselves to their group in an attempt to strengthen students’ social presence. In an attempt to improve instructor immediacy, the instructor also became an active participant in the discussion, most weeks making two comments to each group’s VoiceThread to respond to student comments and thoughts. In addition each student created a personal VoiceThread where the instructor could provide students with individualized feedback. Initial observations appear to indicate that this course has a higher level of instructor immediacy and students have an improved sense of social presence as compared to the previous semester.

During Fall 2009, in addition to VoiceThread videos, the instructor recorded weekly videos that were posted as part of each week’s online agenda found on the class wiki site, along with text-based instructions. The weekly video provided general feedback regarding students’ performance during the previous week and oriented them to the current week’s assignment. One purpose of these orientations was to give the students a sense of who the instructor was as a person. The videos were not scripted and the instructor oriented students to the week’s activities much like he would have done the first five minutes of a face-to-face class. Below each media rich video the instructor included similar orientation information as text. Although viewing of the video was not required, survey responses and YouTube view counts indicated that most students chose

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to watch the videos. There was also evidence that the weekly video helped to increase the instructor immediacy in the course. Using a six-point Likert scale, students were asked to respond to the following statement, “I felt that the weekly orientation video helped to know my instructor better.” Of the 40 respondents, 28 responded affirmatively with five strongly agreeing, 13 agreeing, and 10 somewhat agreeing.

Some students felt that the text instructions were sufficient or that the videos were too long. However, the majority saw the video orientation as a helpful addition. Students were asked to respond to the following question, “Was having the instructor do a video orientation in the weekly online agenda valuable to you? Why or why not?” Their comments included:

- “Yes. It always clarified what I needed to do and what he wanted. It also reminded me that I had a teacher there that cared and was willing to help.”
- “Yes. It gave me an overview of what to expect and what to do. It also helped me to get to know my instructor better, and it reminded me he was there to help us.”
- “Yes, it was nice to hear him tell us what to do instead of just reading it.”
- “Yes, since he clarified the agenda more. I appreciated watching the teacher and having that as a resource.”
- “Yes, because I could actually see what we were supposed to do.”

Case Three: Video Blogs

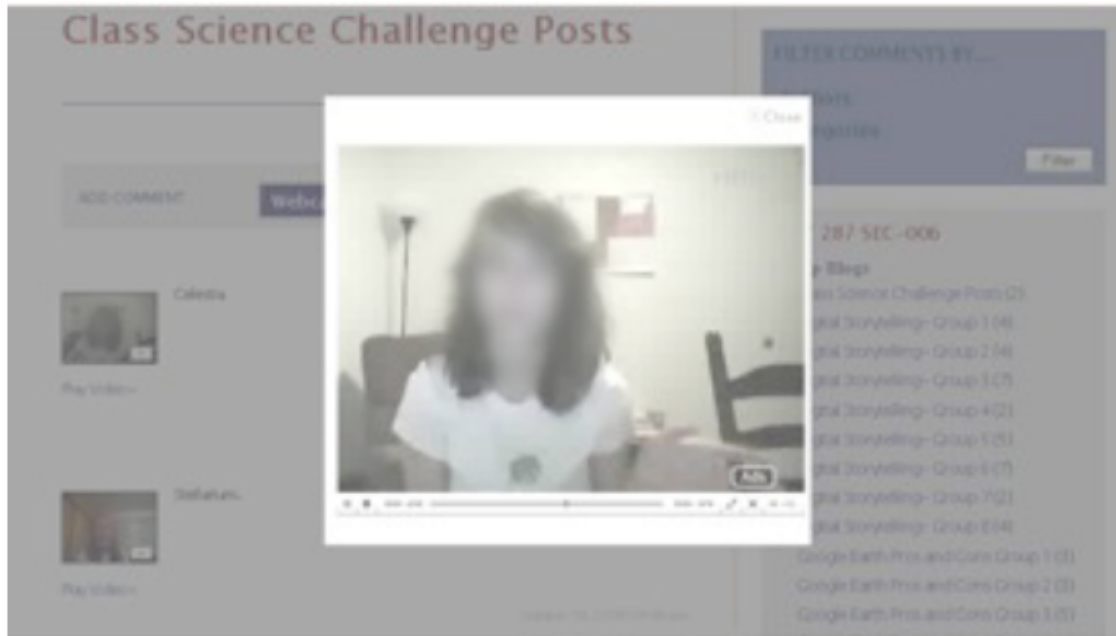
Also during the Fall 2009 semester in another blended learning section of the same course, another instructor chose to use video blogs as a way to host both private and

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public instructor-student and student-student video communications. The video blogs were created by BYU's Center for Teaching and Learning as a design solution to improve participation and engagement in the blended section. Each student was given access to various group video blogs and one individual blog. Group blogs allowed the instructor to select various students to be in a group video discussion. Everyone in the group could then post comments to their group and see others' posts. The individual blog allowed only one student and the instructor access to postings. Students had the ability to make video, audio, and text comments on the blogs. It was required that students make video comments, but in cases when a video posting was not possible, students used the audio or text features to post their comment. As comments were made, they were placed in ascending sequential order on the page (see Figure 8). The video blogs gave the instructor the pedagogical flexibility to create small group discussions by using the group blogs, as well as maintain an individual relationship with each student in the course through the individual blog. Students were able to post multiple comments on a single forum allowing for extended peer-to-peer conversations. However, as a new online tool, the video blogs did not have all the affordances the instructor wanted. For instance, students could not preview comments before posting them, and once they were posted, students could not remove them. In addition, the video blog did not show the thread of the discussion. Instead, each post appeared as a new post and not a reply to a post.

Figure 8. *Sample video blog used to hold small group discussions on content related topics.*

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In order to create better social presence, the first assignment was a group forum where the instructor and each student posted a video introducing themselves to the class. The videos were posted where all students had the ability to view them. In their videos it was common for students to use humor, facial expressions such as smiling, and comments regarding loved ones, such as boyfriends, spouses, friends, and family. In an attempt to improve instructor immediacy and to create a sense of closeness, the instructor also responded to each of the student comments by posting a video on the student's private video blog. The instructor started each response video by referring to the student by name and then giving encouragement and/or citing similarities between the instructor's and student's background. The following are some of the students' comments regarding this assignment:

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- “I really liked this one because it was a fun ice breaker for the class and I loved getting the video response from the teacher. I thought it was a great way to start the class.”
- “Because I was getting to know my classmates in an online setting, still I was getting to know them personally.”
- “I enjoyed watching others' posts and getting to know the personalities of some of the people in the class.”

For the majority of subsequent posts, students were organized into eight groups, each containing around four students. Each group was then assigned a forum and was asked to share feelings and thoughts on content-related topics. One of the topics was explored via a friendly group debate. Each student was given either a pro or a con stance and then posted video comments concerning the use of Google Earth in an elementary classroom. It was common for students to interact with peers via video posts by referring to their peers by name and/or summarizing peer comments.

After this debate assignment, the instructor opted to create more creative video assignments in order to facilitate student-to-student interaction using the video blog. One of the affordances of the video blog is that students can lead group discussions alone, without the presence of the instructor. Although, the instructor was usually present in the discussions, students were encouraged after each posting to watch the postings of their colleagues. Sometimes, responding to others' posts was part of the assignment. This created a larger audience for the students in the course and provided them with multiple perspectives to consider. One example is when a student posted a pessimistic outlook on

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the use of technology to teach Google Earth. A number of students in the class responded to her posting providing many reasons why she should reconsider her perspective. This situation provided an opportunity for others in the class to think critically, it also helped the student by showing her that others in her same situation (not just the instructor) were open to the use of technology with this particular subject, and it reduced the instructor's workload in terms of convincing the student on the relevance of technology. A survey was used to obtain student feedback regarding their perception of the usefulness of video blogs during the course. The following are some of the students' positive comments about the video blog:

- "I liked watching other videos and it helped it feel like we were part of a class."
- "It's a cool tool and an easy way to put a face with people, not just text on the screen."
- "I thought it was really fun and a great tool to learn how to use. I had problems with it at first, but after I figured it out, I really liked it. Its fun to actually see people talking."

The following are some of their negative feedback:

- "Not a fan. It is too much of a hassle and no one wants to watch them. You gain the same thing from a normal blog."
- "Sincerely, I rather make a comment in a real classroom then in a video blogging tool. But it is an amazing tool though."

In general, many students liked listening to others' opinions on content related topics. Students valued the social nature of the video tool. However, others questioned

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the affordance of the tool in helping students work in groups and connect with each other. Those who did not like the tool stated that they didn't see the benefit of a video blog over a traditional blog posting because they didn't see value in interacting with others and the professor through the video medium. When asked if the use of the tool in the course improved the quality of the course, 21 out of 34 students answered yes.

The instructor found that video tools should be designed to afford student-to-student interaction along with assignments that make use of this affordance to create a community where students learn from other students and not solely from the instructor. With this in mind the video blogging tool will be undergoing an evaluation and redesign. One of the aspects of the tool that will be targeted in the analysis is its ability to help students work in groups and communicate with each other. When the tool was initially designed and developed, this criterion was not part of the design but it will be one of central focus in the second iteration of the tool.

FUTURE RESEARCH DIRECTIONS

The findings shared in this chapter were rooted in student perceptions. A logical next step in the research would be to examine the effects that asynchronous communications have on student behavior and performance in a blended learning environment. In particular, there is a need to understand how instruction that is centered around instructor-learner interaction (as opposed to primarily learner-content interaction) shapes learner dispositions. Research should also examine the use of asynchronous video communication in other blended and online learning contexts including that of K-12 education. K-12 educators are particularly interested in the role of caring and

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nurturing pedagogies in a learning environment (Sirotnik, 2001). It is important to investigate the effectiveness of strategies that allow instructors to maintain and even develop a nurturing relationship with learners despite being separated in time and space. Different approaches to using asynchronous video may provide insightful ways to use technology to strengthen the student-instructor relationship in a blended learning environment. Researchers need to document cases that highlight practical pedagogies that effectively use the affordances of asynchronous video to facilitate and assess student learning.

Although asynchronous video may approach the level of fidelity found in a face-to-face learning environment, it is not the argument of the authors that asynchronous video communication replace all face-to-face instruction. More research is needed to identify those tasks that are more effectively performed in a face-to-face environment and those that can be effectively done online. In addition, instructors and researchers should seek to find which online tasks require human interaction around content and which can be done through learner-content interaction alone.

CONCLUSIONS

Instructors in a blended learning format struggle to find an effective balance between face-to-face instruction that is high in fidelity and online instruction that is high in flexibility. The three cases shared in this chapter show that asynchronous video communication can help to provide the best of both methods and offer students instruction high in fidelity and flexibility. Although the medium for sharing asynchronous video varied between three sections of the blended learning course,

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findings indicate that video in all sections was a useful tool to improve instructor immediacy and/or social presence with a minimum amount of face-to-face instruction and maintaining a high level of flexibility. The instructors in all three cases saw asynchronous video communications as an effective way to communicate with students. Instructors found that students' nonverbal cues alerted them to confusion and frustration that may have been missed in text based communication. The majority of students in all three cases responded positively to asynchronous video communications. Students commonly cited that they felt the video communications helped them to get know the instructor and peers better than they would have in text-based interactions.

However, some students also expressed concerns and/or a dislike of video communications. Some students expressed the perception that text communications would have been sufficient for course communication. Other student comments focused on the constraints of the communication tool chosen for the section of the course. In the course section where Facebook was used, students liked using a familiar tool that they were already regularly using and students who did not like it usually cited privacy concerns or wanting to keep their social life separate from their academic life. In the course section that used VoiceThread, many students encountered technical problems when using the unfamiliar tool which seemed to lessen their perceived value of the video communication. VoiceThread and the video blogs lacked the affordance of threading conversations which may have contributed to a perception that others were not viewing or responding to their comments.

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REFERENCES

- Christensen, L. & Menzel, K. (1998). The linear relationship between student reports of teacher immediacy behaviors and perceptions of state motivation, and of cognitive, affective, and behavioral learning. *Communication Education*, 47(1), 82-90.
- Christophel, D. M. (1990). The relationship among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, 39(4), 323-340.
- Christophel, D. M. & Gorham, J. (1995). A test-retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college classes. *Communication Education*, 44(4), 292-306.
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32(5), 554-571.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105.
- Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. *Communication Education*, 37(1), 40-53.
- Graham, C. R. (2008). Blended learning models. In M. Khosrow-Pour (Ed.), *Encyclopedia of Information Science and Technology* Vol. 2, pp. 375-382. Hershey, PA: Idea Group Inc.

PUBLICATION INFO: Borup, J., Graham, C. R., & Velasquez, A. (2011). The use of asynchronous video communication to improve instructor immediacy and social presence in a blended learning environment. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation* (pp. 38-57). Hershey, PA: IGI Global.

- Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs* (pp. 3-21). San Francisco, CA: Pfeiffer.
- Graham, C. R., Allen, S., & Ure, D. (2005). Benefits and challenges of blended learning environments. In *Encyclopedia of Information Science and Technology* (pp. 253-259). Hershey, PA: Idea Group Inc.
- Griffiths, M. (2010). *Improving the asynchronous video learning model*. Unpublished doctoral dissertation, Brigham Young University, Provo, UT.
- Griffiths, M. E., & Graham, C. R. (2009a). The potential of asynchronous video in online education. *Distance Learning*, 6(2), 13-22.
- Griffiths, M. E., & Graham, C. R. (2009b). Using asynchronous video in online classes: Results from a pilot study. *Instructional Technology & Distance Education*, 6(3), 65-76.
- Griffiths, M. E., & Graham, C. R. (2010, in press). Using asynchronous video to achieve instructor immediacy and closeness in online classes: Experiences from three cases. *International Journal on E-Learning*.
- Gunter, G. A. (2007). The effects of the impact of instructional immediacy on cognition and learning in online classes. *International Journal of Social Sciences*, 2(3), 196-202.
- Ice, P., Curtis, R., Philips, P., & Wells, J. (2007). Using asynchronous audio feedback to enhance teaching presence and students' sense of community. *Journal of Asynchronous Learning Networks*, 11(2), 3-25.
- PUBLICATION INFO:** Borup, J., Graham, C. R., & Velasquez, A. (2011). The use of asynchronous video communication to improve instructor immediacy and social presence in a blended learning environment. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation* (pp. 38-57). Hershey, PA: IGI Global.

- LaRose, R. & Whitten, P. (2000). Re-thinking instructional immediacy for web courses: A social cognitive exploration. *Communication Education*, 49(4), 320-338.
- Meheabian, A. (1969). Some referents and measures of non-verbal behavior. *Behavioral Research Methods and Instruments*, 1, 213-217.
- Overbaugh, R. C. & Casiello, A. R. (2008). Distributed collaborative problem-based graduate-level learning: Student's perspectives on communication tool selection and efficacy. *Computers in Human Behavior*, 24(2), 497-515.
- Rice, R. E., Hiltz, S. R., & Spencer, D. H. (2005). Media Mixes and Learning Networks. In S. R. Hiltz & R. Goldman (Eds.), *Learning together online: Research on asynchronous learning networks* pp. 215-237. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Rourke, L., Anderson, T., Garrison, D. R., & Archer, W. (1999). Assessing social presence in asynchronous, text-based computer conferencing. *Journal of Distance Education*, 14(2), 50-71.
- Rovai, A. (2002). Building sense of community at a distance. *International Review of Research in Open and Distance Learning*, 3(1).
- Sirotnik, K. (2001). Renewing schools and teacher education: An odyssey in educational change. Washington, DC: American Association of Colleges for Teacher Education.
- U.S. Department of Education, National Center for Education Statistics. (2008). *Distance Education at Degree-Granting Postsecondary Institutions: 2006-07*. Retrieved October 17, 2009, from <http://nces.ed.gov/pubs2009/2009044.pdf>
- PUBLICATION INFO:** Borup, J., Graham, C. R., & Velasquez, A. (2011). The use of asynchronous video communication to improve instructor immediacy and social presence in a blended learning environment. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation* (pp. 38-57). Hershey, PA: IGI Global.

Velasquez, A., Graham, C. & McCollum, K. (2009). Online Social Networking Used to Enhance Face-to-Face and Online Pre-Service Teacher Education Courses. In I. Gibson et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2009*. Chesapeake, VA: AACE.

ADDITIONAL READINGS

Bersin & Associates. (2003). *Blended learning: What works?: An industry study of the strategy, implementation, and impact of blended learning*: Bersin & Associates.

Caspi, A., & Blau, I. (2008). Social presence in online discussion groups: Testing three conceptions and their relations to perceived learning. *Social Psychology of Education, 11*, 323-346.

Cookson, P. (2002). The hybridization of higher education: Cross-national perspectives. *International Review of Research in Open and Distance Learning, 2*(2).

Cottrell, D., & Robison, R. (2003). Blended learning in an accounting course. *Quarterly Review of Distance Education, 4*(3), 261-269.

Driscoll, M. (2002, March 1, 2002). Blended Learning: Let's get beyond the hype. *e-learning, 54*.

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education, 13*(1-2), 5-9.

Garrison, D., Cleveland-Innes, M., & Fung, T. S. (2010). Exploring causal relationships among teaching, cognitive and social presence: Student perceptions of the

PUBLICATION INFO: Borup, J., Graham, C. R., & Velasquez, A. (2011). The use of asynchronous video communication to improve instructor immediacy and social presence in a blended learning environment. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation* (pp. 38–57). Hershey, PA: IGI Global.

- community of inquiry framework. *The Internet and Higher Education*, 13(1-2), 31-36.
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95-105.
- Garrison, D. R., & Vaughan, N. D. (2007). *Blended learning in higher education: Framework, principles, and guidelines*. Jossey-Bass.
- Graham, C. R. (2008). Blended learning models. In M. Khosrow-Pour (Ed.), *Encyclopedia of Information Science and Technology* (Vol. 2, pp. 375-382). Hershey, PA: Idea Group Inc.
- Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs* (pp. 3-21). San Francisco, CA: Pfeiffer Publishing.
- Graham, C. R., & Allen, S. (2005). Blended learning environments. In C. Howard, J. V. Boettecher, L. Justice, K. D. Schenk, P. L. Rogers, & G. A. Berg (Eds.), *Encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.
- Graham, C. R., & Allen, S. (2009). Designing blended learning environments. In P. L. Rogers, G. A. Berg, J. V. Boettecher, C. Howard, L. Justice, & K. Schenk (Eds.), *Encyclopedia of Distance Learning* (Vol. 2, pp. 562-570). Hershey, PA: Idea Group Inc.
- PUBLICATION INFO:** Borup, J., Graham, C. R., & Velasquez, A. (2011). The use of asynchronous video communication to improve instructor immediacy and social presence in a blended learning environment. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation* (pp. 38-57). Hershey, PA: IGI Global.

- Graham, C. R., Allen, S., & Ure, D. (2005). Benefits and challenges of blended learning environments. In M. Khosrow-Pour (Ed.), *Encyclopedia of Information Science and Technology* (pp. 253-259). Hershey, PA: Idea Group Inc.
- Graham, C. R., & Dziuban, C. D. (2008). Core research and issues related to blended learning environments. In J. M. Spector, M. D. Merrill, J. J. G. van Merriënboer, & M. P. Driscoll (Eds.), *Handbook of research on educational communications and technology* (Vol. 3, pp. 269-276). Mahwah, NJ: Lawrence Earlbaum Associates.
- Graham, C. R., & Robison, R. (2007). Realizing the transformational potential of blended learning: Comparing cases of transforming blends and enhancing blends in higher education. In A. G. Picciano & C. D. Dziuban (Eds.), *Blended learning: Research perspectives* (pp. 83-110). Needham, MA: Sloan Consortium.
- Leh, A. S. (2002). Action research on hybrid courses and their online communities. *Educational Media International*, 39(1), 31-38.
- Morgan, K. R. (2002). *Blended Learning: A Strategic Action Plan for a New Campus*. Seminole, FL: University of Central Florida .
- Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning systems: Definitions and directions. *Quarterly Review of Distance Education*, 4(3), 227-234.
- Picciano, A. G., & Seaman, J. (2007). K-12 Online Learning: A Survey of US School District Administrators. *The Sloan Consortium*. [Online] http://www.sloan-c.org/publications/survey/K-12_06
- PUBLICATION INFO:** Borup, J., Graham, C. R., & Velasquez, A. (2011). The use of asynchronous video communication to improve instructor immediacy and social presence in a blended learning environment. In A. Kitchenham (Ed.), *Blended learning across disciplines: Models for implementation* (pp. 38-57). Hershey, PA: IGI Global.

Picciano, A. G., & Dziuban, C. (Eds.). (2007). *Blended learning: Research perspectives*.

Needham, MA: The Sloan Consortium.

Reay, J. (2001). Blended learning - a fusion for the future. *Knowledge Management*

Review, 4(3), 6.

Richardson, J. C., & Swan, K. (2003). Examining social presence in online courses in

relation to students' perceived learning and satisfaction. *Journal of Asynchronous*

Learning Networks, 7(1), 68-88.

Rooney, J. E. (2003). Blending learning opportunities to enhance educational

programming and meetings. *Association Management*, 55(5), 26-32.

Rovai, A. (2002b). Sense of community, perceived cognitive learning, and persistence in

asynchronous learning networks. *The Internet and Higher Education*, 5(4), 319-

332.

Schutt, M., Allen, B. S., & Laumakis, M. A. (2009). The effects of instructor immediacy

behaviors in online learning environments. *Quarterly Review of Distance*

Education, 10(2), 135-148.

Vaughan, N. D. (2010). A blended community of inquiry approach: Linking student

engagement and course redesign. *The Internet and Higher Education*, 13(1-2), 60-

65.

Waddoups, G., Hatch, G. L., & Butterworth, S. (2003). Blended teaching and learning in

a first-year composition course. *Quarterly Review of Distance Education*, 4(3),

271-278.

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- Waddoups, G., & Howell, S. (2002). Bringing online learning to campus: The hybridization of teaching and learning at Brigham Young University. *International Review of Research in Open and Distance Learning*, 2(2).
- Wade, W. (1994). Introduction. In W. Wade & K. Hodgkinson & A. Smith & J. Arfield (Eds.), *Flexible Learning in Higher Education* (pp. 12-16). London: Kogan Page Limited.

KEY TERMS AND DEFINITIONS

Blended Learning: Any community of learning that combines face-to-face instruction with computer-mediated instruction.

Hybrid Course: A course that combines face-to-face instruction and computer-mediated instruction – same as a blended learning course.

Immediacy: Verbal and nonverbal communication/behavior that facilitates a sense of closeness with another individual.

Social Presence: The ability to convey oneself as an individual with emotions, feelings, and senses of humor.

Media Richness: The level of fidelity a tool has to convey information.

Asynchronous Video: Video communication that is distributed in time and space.

VoiceThread: An online program designed to promote asynchronous discussion around media such as pictures and video.

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