

A Multi-Case Study of Student Perceptions of Instructor-Created Videos in Online Courses

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Abstract

The purpose of this qualitative multi-case study was to examine student perceptions of the use of instructor-created videos in online courses after completing a masters leading to teacher certification. The study included three data sources for each of the three cases: responses to questionnaires, written responses during online peer discussions, and course assignments. Guiding this research was the idea that a fundamental pedagogical shift is needed for online content learning and student-instructor relationship building. Looking through the lens of online learning, case study participants perceived that using instructor-created videos in online courses can: (1) lead to a more successful course experience, (2) all program courses should contain them in order to support relationship building and course and content understanding, (3) they enjoyed learning about the instructor, (4) knew their instructor better, (5) perceived that their instructors had many positive characteristics, and (6). would feel more comfortable taking the course.

Keywords: Instructor-Created Videos; Student-Teacher Relationships; Online Courses

Introduction

Online learning is an integral part of university course offerings. 70.8% of academic leaders report e-learning as critical to their long-term strategy; this increased from 65.5% in 2011 (Haynie, 2015). In a study called 'Going the Distance: Online Education in the United States, 2011' over 6.1 million students have taken at least one online course and that was a 10.1% increase over the prior year. Online courses are defined as a course where over 80% of the course content is delivered online and where there is no face-to-face interaction with instructors.

Included in the proliferation of online offerings are programs designed for teacher certification (Jett & Delgado-Romero, 2009). In 2015, U.S. News & World Report disclosed their ranking procedure for the Best Online Graduate Education Programs. Their rating method considered several categories including Student Engagement (35%), Student Services and Technology (20%), Faculty Credentials and Training (15%), Admissions Selectivity (15%), and Peer Reputation (15%). The category of Student Engagement is the one most affected by classroom instruction and is described as offering opportunities for students, participating in pre-service teaching, to interact with instructors and their classmates, providing instructors who are responsive and available, and to create a rewarding experience which keeps students enrolled to complete their degrees (Haynie, 2015).

Student engagement is connected to learning and therefore is a critical component of instruction and student success (Council of Chief State School Officers, 2013). Taking a deeper look at learning, Hofer (2015) explained that advances in neuroscience and digital brain imaging yielded information

about how differently people learn. Universal Design for Learning (UDL) offers a framework with three principles that together work to engage the diversity of students encountered in university courses: multiple means of representing content, multiple means of action and expression, and multiple means of engagement (Hofer, 2015).

While giving students educational opportunities, the environment for the online learner has been altered dramatically from face-to-face courses (LaPointe & Reisetter, 2008; Reisetter et al., 2007) and according to UDI Online Project (2010), a fundamental pedagogical shift is needed to design academically sound online courses. Therefore, it is essential to better comprehend the perceptions of students in online higher education courses and to continue to strive to understand what students perceive supports their success (Kelly, 2012, August: UDI Online Project, 2010).

Tunks (2012) suggested that instructors invite successful students to share their input about how to improve courses by providing questionnaires at the end of their courses in order to reflect on students' responses and make meaningful course changes as indicated by the data collected. The Scholarship of Teaching and Learning (SoTL) is an effective method to improve teaching based on research that includes college level students (Friberg, 2014) because it involves the systematic study of teaching and learning followed by thoughtful course adjustments based on the data/feedback collected (McKinney, n.d.).

Purpose of the Study

The purpose of this IRB approved instrumental multi-case study was to gain an in-depth understanding of students' perceptions about instructor-created video usage in online courses taken in a Master of Science in Secondary Education program that leads to teacher certification. Introduction and content-related instructor created videos were utilized in this study to learn if they were perceived by students to support instructor-student relationships and the learning of difficult content or concepts. Specific instructor-video categories such as students perceiving instructors to be welcoming and supportive, knowledgeable and caring, and instructors sharing their experiences or showing a sense of humor, etc., were used to determine which facets of the videos supported relationship building. Categories related to understanding content or concepts were utilized to determine if instructor-created content videos supported students in this manner. The data collected were triangulated using three data sources. The data from these three sources were analyzed, as per a multiple case study analysis, to determine a thorough understanding of how online education graduate students perceived the value of four instructor-created videos after successful completion of the program (Creswell, 2007; Merriam, 2009). The instrumental case study design was utilized in order to determine the 'how' and 'why' of a specific experience or phenomenon, thereby providing in-depth information about the research questions (Merriam, 2009).

Dropbox assignments and discussion posts that were included in the triangulated data were gathered from four courses, which occurred in the fall and spring prior to program completion and were taught by the same instructor (i.e., Instructor Y). All four of these courses contain pivotal content such as a practice Teacher Work Sample (TWS) to support future student teaching success, lesson and unit planning, information about laws that affect students, teachers, and schools, and research into teaching practices with the highest effect size (Hattie, 2009).

Since the post-baccalaureate certification program is relatively new, growing, and has recently added a graduate degree, it is essential that student perceptions of practices that may further support their success are researched. Given that the purpose of the application of these strategies is specifically geared for pre-service teachers in an online teacher education graduate program, the focus is intentionally narrow (McKinney, 2007). The gap in the literature being addressed was: Participant (i.e., students who completed the graduate program the previous spring) perceptions of introductory and content-related instructor-created videos in the building of instructor-student relationships and the learning of content. Questionnaires were sent out and collected the summer after the case study students completed the program. In addition, three points were specifically asked of participants: 1) their perceptions of instructor attributes conveyed in the videos that best supported their connectedness to said instructor and relationship building, 2) their perceptions about the course and the instructor, and 3) their perceptions of course completion and success.

Related Literature

With the recent increases in online course offerings and enrollments, current students are more likely to take an online class than their predecessors (Tichavsky, Hunt, Driscoll, & Jicha, 2015). With these increases and more instructors teaching online courses, educators are interested in learning more about course design elements that support student success. Gurung and Schwartz (2010) discussed the importance of teachers in predicting academic achievement. Research by Ladyshevsky (2013) determined that instructors play a key role in the satisfaction of online learners through instructor presence and the creation and support of classroom social networks. Fayer (2014) determined four course design elements that were valued by students and their interrelatedness in supporting online course success. In this research, case study students placed great value on strong course organization, time-flexible feedback, confidence in the instructor's content ability and consistent support, and relevance of both feedback and coursework (Fayer, 2014). With interaction being at the forefront of online learning, student success via online learning presents unique challenges to instructor-student relationships (Kelly, 2012, August).

Online courses are being researched separately from face-to-face courses in order to better understand online student needs (Reisetter, LaPoint, & Korcuska, 2007). In a study by Tichavsky et al. (2015), researchers found that students preferred face-to-face courses overall and the strongest theme was the perceived lack of interaction with the instructor in online courses. Being in the presence of other students and the instructor in a face-to-face course may give the impression of interaction, which presents an inherent perceptual challenge for online learning. Therefore, studying ways to improve the feeling of connectedness to the instructor need further study. One such method would be the use of instructor-created videos to introduce the course and to convey content that may be more difficult to understand (Rose, 2009). Rose (2009) found that students in both face-to-face and online courses viewed instructor videos positively. However, for students in online courses the more traditional atmosphere created by instructor-created videos seemed to enhance students' learning experiences and make them feel more connected to the instructor. Cognitive presence, social presence, and teaching presence are requirements in supporting learner comfort with a course. Teacher presence in an online course can be a challenge; however, one way to start the relationship building process in an online course is to supply students with an introductory instructor-created video (Jones, Naugle, & Kolloff, 2008).

With the rapid pace of change in technologies and the idea that they can increase the effectiveness of teaching and learning, research is being directed in this wide-open area of study. Li, Zhou, and Aguiton (2015) in a study of digital native pre-service teacher's attitudes toward using technology in the classroom, found that these students have not necessarily become more comfortable keeping pace with the fast rate of change in technology and that self-efficacy and perceived computer skills have a great influence as to whether new instructional strategies will be attempted. Therefore, the more specific information instructors have from students on the best way to use technology to support learning, the more they can focus on a narrower range of strategic technologies and increase the probability of success and self-efficacy. (Russel, Malfroy, Gosper, & McKenzie, 2014).

Method

At a small, rural, Midwestern university, students who have a bachelor's degree in a teachable content area can complete specific coursework within a single year to become a certified teacher. This program was designed to create a quick avenue for degreed students to move into their own classrooms. The potential advantages of this program are its affordability, access to financial aid, online venue, and the ability to complete a master's degree leading to a teacher certification without living near a university.

Several students who completed the program in the spring agreed to be involved in the research study. Two students completed the pilot questionnaire and changes were made as per their suggestions. Three other students were Case Study Participants 1, 2, and 3 who completed the questionnaire and any subsequent follow-up questions. The three students had different content areas, one was Physical Education, another was History Education, and yet another was Biology Education. The questionnaire consisted of the participants watching four videos and with each video answering both Likert Scale questions and open-ended questions. Two videos were course introductions and were created by two instructors (i.e., Instructor X and Y) that the students were familiar with from their coursework in the online program and two videos were content specific and were created by one of these same instructors (i.e., Instructor X). Therefore, Instructor X created three of the videos, one introduction and two content related, and Instructor Y created one introduction video. Prior to the questionnaire, the students had not viewed the videos; however, one of the instructors did use similar videos in a program course taken by the students (i.e., Instructor X). During the school year, Instructor X's students gave Instructor Y positive feedback about these videos and this led to the interest in this study.

An instrumental case study format was chosen to facilitate the understanding of how students perceived four instructor-created videos (Merriam, 2009). The questionnaires were first analyzed one at a time for emergent themes using the Likert Scale responses and the open-ended questions. Following this analysis, member checks were utilized as participants were asked to read and comment on their individual case study findings in terms of the emergent themes and perceptions, and the supporting evidence. According to Gay (2006), this step addresses validity or the degree to which the qualitative study measured the intended research question.

This study included three data sources for each of the three cases: responses to questionnaires sent to three students via email, written responses during online peer discussions, and participants' assignments. After the initial analysis and approval by the case study participants, the other two data sources were examined and analyzed for connections to questionnaire themes. Once this new examination was completed, the information that related to the questionnaires was once again shared with the participants and approved by them to increase the validity of the study (Gay, 2006). Students

were asked if changes to the themes were appropriate if this triangulated data seemed to suggest small changes to the themes. The students approved the small changes suggested by the researcher or felt that the suggested changes did not agree better with their perceptions or no suggestions for changes were made by the researcher.

The first data source was the completed questionnaire with both Likert Scale questions and open-ended questions. The second data source was student in-course discussions for the four courses taken with the researcher. Each week students were asked to post their original answer to discussion questions based on course readings and media, and then respond to two other students using a rubric as a guide for success. The contents of these online discussions were the second source of data. Data were analyzed in the preferred qualitative method of simultaneously analyzing while continuing to collect data using coding analysis to assign categories (Creswell, 2007; Merriam, 2009). The last data source was a record review consisting of course assignments (Merriam, 2009).

These three data sources facilitated the process of within-case triangulation thus supporting construct validity (Yin, 2003). Member checks were conducted three times to finalize the data in Table 1; first, when the emergent themes were initially determined from the questionnaires alone, second, when the discussion and assignment data was included, and third, after Table 1 was completed. These steps address validity or the degree to which the qualitative study measured the intended research question (Gay, 2006).

In summary, the data from the three cases were analyzed as per Creswell's (2007) multiple case study analysis, which included first analyzing the three case studies independently to determine the emergent themes (Table 1) and then afterward, coding for multi-case themes using the data of all three case studies (Table 2). This combined data was examined for assertions and generalizations, or in this study, the perceptions of online students about instructor attributes, student learning and success, student-instructor relationship building, and the subsequent availability of instructor-created videos in the online courses completed during their graduate program (Table 2). Multiple cases provided a more rigorous study due to the triangulation of the cross-case data (Merriam, 2009; Yin, 2003).

Results

When the analysis of case study data was completed individually for each student, themes emerged and were member checked. For each case study student, this included their Likert Scale responses, their open-ended question responses, and the discussions and assignments for the four courses that were taught by Instructor Y. Though all student data were coded and analyzed, for brevity only themes and representative excerpts were included below (Table 1). Member checks occurred at several points; first, when the emergent themes were initially determined from the questionnaires alone, second, when the discussion and assignment data was included, and third, after Table 1 was completed.

Table 1 Three single-case analyses of the triangulated data (Questionnaire plus Artifacts)

Case Study Student	Individual Emergent Themes
Case Study Student #1	<p>Theme 1: The strongest emergent theme by this participant is that an introduction video can support students by <i>more quickly and more effectively developing an online student-instructor relationship</i>, as opposed to courses that do not begin with an instructor introduction video. (Questionnaire Emergent Theme: Member Checked)</p> <ul style="list-style-type: none"> • One of the strongest components of this theme was that students watching the video could sense that the instructor understood the importance of his/her relationship with students in an online course and perceived that they knew how the course would unfold. <ul style="list-style-type: none"> ○ “Students want to know what is expected of them from the start.” (Discussion Post Quote: Member Checked) • Driving this increased pace of relationship building are the visual and auditory sensing, by the participant, of the instructor’s sense of humor, passion and knowledge about their content area, commitment to student success, that the instructor is welcoming and caring, and that the instructor wants the students to become successful future teachers. (Questionnaire Compilation: Member Checked) <p>Theme 2: This participant perceived that the positive effects of student-instructor relationship building from an introduction video can lead to a <i>more successful course experience</i> (such as with dropbox assignments, classroom discussions, and calling or emailing the instructor more quickly as needed). (Questionnaire: Member Checked)</p> <ul style="list-style-type: none"> • “It makes sense that a student will be able to focus on their classroom tasks more efficiently if they feel they are safe, understood, and cared for.” (Discussion Post Quote: Member Checked) • “I like knowing the backstories on individuals. It may not help me complete the courses successfully, but it is nice for building relationships. When you are more comfortable with an instructor, you are more apt to ask questions and increase communication that in turn, helps you learn.” (Questionnaire Quote: Member Checked) <p>Theme 3: For content-related videos this participant perceived that <i>content could be supported through the use of instructor videos</i> and that adding pictures and slides supported additional understanding of what the instructor was trying to convey. (Questionnaire Emergent Theme: Member Checked)</p> <ul style="list-style-type: none"> • In particular, this case study student found that, “Knowing that an instructor finds a chapter lacking in clarification and then clarifying it would be helpful to my understanding” and examples would be very helpful to them as well. (Questionnaire Quote: Member Checked) • “An effective teacher needs to utilize preparation, organization, and knowledge of directing student learning.” (Discussion Post Quote and Lesson Plan Assignment Compilation: Member Checked) • “Some chapters require clarification; some do not. I think a video here and there on a crucial concept or to delve deeper into an unclear concept would be useful.” (Questionnaire Quote: Member Checked)
Case Study Student #2	<p>Theme 1: The strongest emergent theme by this participant is that <i>this participant perceived that instructor created introductory and content-related videos would support visual learners in an online course by having closer connections with professors, understanding assignments, and facilitating understanding of readings and course materials</i>. (Questionnaire Emergent Theme: Member Checked)</p>

<p>Case Study #3</p>	<ul style="list-style-type: none"> • This participant perceived that having videos supports success if the videos explain what students will learn and why a course is important to a student's teaching career (i.e., introductory videos) and if it supports reading material and assignments (i.e., content related videos). (Questionnaire Compilation: Member Checked) • "Yes this is the number 1 thing that would have helped me. I didn't understand a few of the projects that we did right off the bat. I think that videos may help students understand assignments especially for visual learners like myself." (Questionnaire Quote: Member Checked) • "We need to offer students a variety of ways to engage in the material that they are learning within each lesson." (Discussion Post Quote: Member Checked) • "Effective teaching is when students are learning the same content in a variety of ways." (Discussion Post Quote: Member Checked) <p>Theme 2: The second emergent theme is that although this participant felt that the program was very supportive, a great experience, and would not change any of the experiences, having introductory and content-related <i>videos would support an environment more similar to a traditional classroom and that all program online courses should include them to support student learning and student-instructor relationships.</i> (Questionnaire Emergent Theme: Member Checked)</p> <ul style="list-style-type: none"> • "The more a student is allowed to interact with content and they are provided detailed feedback about their interaction, the better they perform or understand and retain the content that they have learned. I believe that this is the big picture of what we are learning in all of our classes." (Discussion Post Quote: Member Checked) <p>Theme 1: The strongest emergent theme was that this participant perceived that instructor created videos would support this case study student's <i>connection to and understanding of course concepts, class readings and discussions, and a better and quicker connection with the instructor.</i> (Questionnaire Emergent Theme: Member Checked)</p> <ul style="list-style-type: none"> • "I do believe I know more about reliability and validity. This video gave me more to think about and connections to make to the textbook reading. Discussions can revolve around this video as well. This would support other students' learning and provide opportunity to discuss the application of this task in the classroom. This video really drove the point home." (Questionnaire Quote: Member Checked) • "The video experience allows me to feel like I have a personal relationship with the professor. It feels more personable than while in a traditional classroom while also making those personal connections over the Internet." (Questionnaire Quote: Member Checked) <p>Theme 2: Instructor created videos that <i>address difficult concepts and assignments would support student success and are valuable to have in all program courses.</i> (Questionnaire Emergent Theme: Member Checked)</p> <ul style="list-style-type: none"> • "I would have liked to see videos like this to supplement my learning in all the courses." (Questionnaire Quote: Member Checked) • This supports the understanding of learner-centered education, which encompasses methods of teaching that shift the focus of instruction from the teacher to the student. (Questionnaire Compilation: Member Checked) <p>Theme 3: Instructor created videos <i>can illustrate to students that instructors are stepping out of their comfort zones for their students to learn better and that this model would support pre-teachers in their quest for best practice even if it means stepping out of their own comfort zones.</i> (Questionnaire Emergent Theme: Member Checked)</p> <ul style="list-style-type: none"> • "Professional learning and practice of the teacher go hand in hand by constantly challenging the teachers. The teacher must model that they are life-long learners
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	<p>as well. Teachers needs to use ongoing analysis and reflection to improve planning and practice.” (Discussion Post Quote: Member Checked)</p> <ul style="list-style-type: none"> • “Instructor Y shows us that making a video can be something that we may not like to do, but it is something that supports learning. I could tell Instructor Y was nervous in the video, however I felt that this was humbling.” (Questionnaire Quote: Member Checked) • “Throughout classes we always hear that the fear of failure is something to get over. It is a good thing to get out of your comfort zone.” (Questionnaire Quote: Member Checked)
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When individual analysis of case study data was completed, the three case study participants perceived, by agreeing or strongly agreeing, that the introduction videos of both instructors would support students feeling more positive about student-instructor relationships. The results were the same when they were asked about related factors such as the instructor being welcoming and supportive, knowledgeable and caring, understanding of the importance of student-instructor relationships, and the importance of several specific constructs. In addition, participants enjoyed learning about their instructors, perceived that their instructors were passionate about teaching and learning, and found information about the courses helpful. One of the three case study participants perceived that watching either video would positively impact their use of self-created videos. One of the three case study participants perceived that watching either video would positively impact their own future use of video creation with future students, and one was neutral in terms of learning about Instructor X’s early teaching experience (Appendix 1: Question Sets 1 and 2).

Additionally, the three participants perceived, by agreeing or strongly agreeing, that both instructors had a good sense of humor and that they enjoyed learning about their instructors via the videos. This helped the participants feel more at ease about taking the course that the videos introduced. Moreover, all participants perceived that the instructors wanted them to be successful in the course and as a future teacher, ask questions whenever needed during the course, and that the embedded slides were important to their understanding of what the instructors were trying to convey. When participants were asked if they believed that the instructor wanted to know more about them, all three students agreed or strongly agreed for Instructor Y and one agreed for Instructor X, while two were neutral (Appendix 1: Question Set 3).

When individual analysis of case study data was completed and compiled all three students perceived, by agreeing or strongly agreeing, that Instructor X’s introduction video helped support the feeling that they knew the instructor better and could build a stronger relationship more quickly. When asked about supporting their success on assignments, Case Study Participants 1 and 3 agreed, while Case Study Participant 2 disagreed and when asked about the video supporting them calling or emailing with questions more quickly Case Study Participant 1 was neutral, 2 disagreed, and 3 strongly agreed (Appendix 1: Question Set 4/Instructor X only).

Additionally, the three participants perceived by either agreeing or strongly agreeing, that Instructor X’s introduction video helped support the feeling that they knew the instructor better, could build a stronger relationship more quickly, and that after watching the video they would be successful in the class discussions and on assignments. When asked about supporting them calling or emailing with

questions more quickly, Case Study Participant 1 agreed, 2 disagreed, and 3 strongly agreed (Appendix 1: Question Set 4/Instructor Y only).

The topics of the two content videos created by Instructor X were (1) Formative Assessment and (2) Reliability and Validity. When individual analysis of case study data was completed and then compiled the three participants perceived, by agreeing or strongly agreeing, that Instructor X's content related videos supported their understanding of the content, perceived that Instructor X was welcoming, supportive, knowledgeable and caring, and that he/she understood the importance of relationships with students in an online course and understood the importance of the content to the participant's future teaching. Additionally, the three participants agreed or strongly agreed that they perceived that they enjoyed learning more about their instructors teaching experiences, found it helpful to know if the instructor found a chapter difficult, and that the instructor was passionate about teaching and learning. Two participants disagreed and one participant strongly agreed that they would be more comfortable using self-created videos in their future teaching and teaching their future students how to use videos during projects (Appendix 2: Question Sets 1 and 2).

When individual analysis of case study data was completed and then compiled the three participants either agreed or strongly agreed that for both videos the instructor's sense of humor and learning more about the instructor helped them feel more at ease about taking the course. In addition, they agreed or strongly agreed that the instructor welcomed questions and wanted them to be successful future teachers and that the embedded visuals were supportive of their understanding of what the instructor was trying to convey. All three participants agreed or strongly agreed that viewing both videos supported their perception that they knew the instructor better, would build a stronger student-instructor relationship more quickly, and supported their overall success in the course. For the category of calling or emailing the instructor more quickly, Case Study Participants 1 and 2 were neutral, while 3 strongly agreed. In terms of supporting their success on dropbox assignments, Case Study Participants 1 agreed, 3 agreed strongly, and 2 disagreed (Appendix 2: Question Sets 3 and 4).

When the data of all three case studies were examined in concert, the following multi-case themes emerged (Table 2).

Table 2: Multi-case study analysis: combined themes of the three participants

Multi-case Themes
<p>Using instructor-created videos in online courses would lead to a more successful course experience.</p> <ul style="list-style-type: none"> • Participants perceived that both introductory and content-related instructor videos would support quicker student-instructor relationship building. • Participants perceived that videos, whether introductory or content-related, that contain course information could support a student's understanding of the course and its content. • Participants perceived that including supportive images or other visuals added understanding and further connection to what the instructor attempted to convey.
<p>All program courses should contain instructor-created videos to support relationship building and course and content understanding.</p> <ul style="list-style-type: none"> • Participants perceived that the above is especially true for critical or complex content, but videos should not accompany each and every concept and should not replace the regular coursework.

- Participants perceived that adding the visual and auditory components of instructor-created videos to an online course would support more learner types and a more learner-centered education that mirrors the traditional classroom atmosphere more than if no videos were included.

After viewing the instructor-created videos, participants perceived that they would feel more comfortable taking the course, that they enjoyed learning more about the instructor, that they knew their instructor better, and that their instructors had many positive characteristics.

- Participants perceived that the instructors showed a sense of humor and this made them feel more at ease about taking the course.
- Participants enjoyed learning more about the instructor and this made them feel more at ease about taking the course.
- Participants enjoyed learning about the instructor's teaching experience and education.
- Participants perceived the instructors to be welcoming, supportive, knowledgeable, caring, passionate about teaching and learning, and that they understood the importance of student-instructor relationships.

Discussion

Online courses can be a lonely experience; students report a disconnectedness that is not present in face-to-face courses (Jones, et. al., 2008). Therefore, the challenge of asynchronous communication and delivery creates the opportunity and requirement for instructors to research, attempt, and assess new ways of connecting and teaching their students (Jones, et. al., 2008). In a fully online program, the sense of teacher presence is more critical (Kelly, 2014). The gap in the literature being addressed was: Participant (i.e., students who completed the graduate program the previous spring) perceptions of introductory and content-related instructor-created videos in the building of student-instructor relationships and the learning of content in an online program offered by a small, rural, Midwestern university. In addition, participants were asked about their perceptions of instructor attributes conveyed in the video that best supported their connectedness to said instructor, positive feelings about the course, and future course success itself in order to narrow the topic for a specific program (McKinney, 2007). Asking participants to complete student teaching prior to completing this research allowed for additional perspective and experience in the student teaching classroom and removed them from the vulnerable subject's category as well. The results of this multi-case study provided insights for online instructors about the use of instructor-created videos, how students perceive they would support their course success and learning, plus a look into how instructor characteristics viewed on these videos were perceived by students, and how said characteristics affected their comfort level about taking that specific course.

Three major themes emerged describing what case study participants perceived after viewing the introductory and content-related instructor-created videos and all yield insights into the importance placed on these videos and the direction in which the program courses need to move. Specific avenues to improve 100% online teacher preparation graduate programs emerged, as the asynchronous design of online courses leads to special accommodations for success, as perceived by students.

The first theme that case study students perceived was that using instructor-created videos in online courses would lead to a more successful course experience. Building relationships between the instructor and students is important in college courses and more difficult to achieve in online courses (Jones, et al., 2008) and according to the case study participants, both introductory and content-

related instructor videos support quicker student-instructor relationship building. In addition, videos, whether introductory or content-related, that contain course information could support a student's understanding of the course and its content. Including supportive images or other visuals added understanding and further connection to what the instructor was attempting to convey.

A second theme that emerged was that case study students perceived that all program courses should contain instructor-created videos to support relationship building and course and content understanding without replacing regular module work such as readings and discussions and should not accompany every concept. This is especially true for using videos to enhance the understanding of critical or complex content. Adding the visual and auditory components of instructor-created videos to an online course would support more learner types and a more learner-centered education that in some ways mirrors the traditional classroom atmosphere. Differentiation in university online courses includes using a variety of instructional practices and new technologies (Melenas, 2014; Smith, 2003).

After viewing the instructor-created videos, participants perceived that they felt more comfortable taking the course, that they enjoyed learning more about the instructor, that they knew their instructor better, and that their instructors had many positive characteristics. In online courses, adult learners need to be made to feel comfortable by their instructors (Smith, 2003). Case study participants perceived that they enjoyed learning more about their instructor and that this along with an instructor's sense of humor made them feel more at ease about taking the course. Moreover, participants perceived that the instructors had many positive attributes such as being welcoming, supportive, knowledgeable, caring, and passionate about teaching and learning, and understood the importance of instructor-student relationships (Jones, et al., 2008).

One other point of discussion is the fact that the students in this study were in a Master of Science in Secondary Education program. As a part of their coursework, they created short videos intended for their future or current students, therefore, would these case study students view and interpret instructor-created videos differently than non-education students that have not created short videos for educational purposes, or undergraduate students.

Limitations

Possible limitations to this research study include the artifacts, which could be only supportive, as the courses offered by Instructor Y did not have these types of videos within them and these courses were the courses used in the study. The assignments and discussion questions addressed technology and video use, but not instructor-created videos directly. They did however discuss differentiation, different learning styles, building teacher-student relationships, what constitutes a safe classroom, and other relevant topics. Lastly, as this is a relatively new program there were only ten Master of Science in Secondary Education students enrolled. All completed their student teaching and three agreed to participate in the study with two others agreeing to pilot the questionnaire. Another limitation of this research may have been that all of the students that participated in the case study had undergraduate degrees and undergraduate GPA's of at least 2.7, which was the minimum requirement for acceptance into the program. Additionally, these students graduated from a master's degree education program leading to teacher certification and, therefore, may be more perceptive about teaching strategies, teacher-student relationship relevance, and pedagogy than students in other programs.

Future Research

One area of future research would be the addition of interactive videos into online courses and programs which would focus smaller sections of content. Case Study Participant 2 stated in the open-ended questions that when a video is long, he/she loses attention and including an interactive component to focus the content into smaller sections would have been helpful. Case Study Participant 3 stated that between the regular classroom experience and the videos viewed in this study, the course would become a classroom that almost transcended a traditional classroom experience. "I am able to learn on my own time but with all the benefits of a classroom. The video experience allows me to feel like I have a personal relationship with the professor. It feels more personable than while in a traditional classroom while also making those personal connections over the Internet. I had a better connection with the instructor, although not having traditional communications..." (Case Study Student 3/Questionnaire Open-Ended Questions: Member Checked). In addition, Case Study Participant 1 felt that the videos would best be used in a limited way for only the most difficult content and concepts. Another area of future research could be to ask students which course concepts they perceived were most difficult and could be supported by an instructor-created video.

Conclusions

It is clear that instructors play an important role in producing quality online courses that are dynamic, meaningful, and support student success. This type of pedagogical research is an exciting area of study and much more needs to be accomplished to understand how students learn best (Gurung & Schwartz, 2010), especially with the expansion of online learning. Moreover, a balanced look at how a strategy affects learning needs to be evidence-based and the Scholarship of Teaching and Learning methodology provides a possible conduit to that evidence (McKinney, 2008; Wiemer, 2015).

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Appendix 1

Introduction Videos

Question Set #1: Instructor X

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	After watching this video, I believe: Students in online courses feel better about the teacher-student relationship if they see their teacher in a video introduction.				2	1; 3
2	Instructor X seems welcoming and supportive in the video.				2	1; 3
3	Instructor X seems knowledgeable and caring in the video.				2	1; 3
4	Instructor X seems to understand the importance of				2; 3	1

his/her relationship with students in an online course.

- | | | | | | | |
|---|---|------|--|--|--|---------|
| 5 | Instructor X would like students to understand the importance of assessment to their future teaching. | | | | | 1; 2; 3 |
| 6 | I would feel more comfortable using self-created videos with my future students, such as in flipping the classroom. | 1; 2 | | | | 3 |

Question Set #1: Instructor Y

- | # | Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|--|-------------------|----------|---------|-------|----------------|
| | After watching this video, I believe: | | | | | |
| 1 | Students in online courses feel better about the teacher-student relationship if they see their teacher in a video introduction. | | | | 2 | 1; 3 |
| 2 | Instructor Y seems welcoming and supportive in the video. | | | | 2 | 1; 3 |
| 3 | Instructor Y seems knowledgeable and caring in the video. | | | | 2 | 1; 3 |
| 4 | Instructor Y seems to understand the importance of her relationship with students in an online course. | | | | | 1; 2; 3 |
| 5 | Instructor Y would like us to understand the importance of our future relationships with our own students. | | | | 2 | 1; 3 |
| 6 | I would feel more comfortable using self-created videos with my future students, such as in flipping the classroom. | | | 1; 2 | | 3 |

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

Question Set #2: Instructor X

- | # | Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---------------------------------------|-------------------|----------|---------|-------|----------------|
| | After watching this video, I believe: | | | | | |

1	I would feel more comfortable teaching my future students how to use videos during projects.	1; 2	3
2	I enjoyed learning about Instructor X's teaching experiences.		1; 2 3
3	I enjoyed learning about Instructor X's educational experiences.		1; 2 3
4	Instructor X seems passionate about teaching and learning.		2 1; 3
5	The information about how the course will unfold was very helpful to my understanding of what was going to happen in this course.		2; 3 1
6	I was interested in the information about how Instructor X worked with her students when she first began teaching.	1	2; 3

Question Set #2: Instructor Y

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I would feel more comfortable teaching my future students how to use videos during projects.			1; 2		3
2	I enjoyed learning about Instructor Y's teaching experiences.				1; 2	3
3	I enjoyed learning about Instructor Y's education.				1; 2	3
4	Instructor Y seems passionate about teaching and learning.					1; 2; 3
5	The information about the SPED project/assignment was very helpful and I would have understood it better if this video had been part of Module 1.				1; 2	3

- 6 I was interested in the information about how Instructor Y worked with her SPED teacher. 1; 2 3

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

Question Set #3: Instructor X

- | # | Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|--|-------------------|----------|---------|-------|----------------|
| | After watching this video, I believe: | Disagree | | | | Agree |
| 1 | Instructor X showed a sense of humor and this made me feel more at ease about taking the course (i.e., if you were going to be taking the course). | | | | 1; 2 | 3 |
| 2 | Instructor X wanted to know more about me. | | | 1; 2 | 3 | |
| 3 | I enjoyed learning about Instructor X and it made me feel more at ease about taking the course (i.e., if you were going to be taking the course). | | | | 2 | 1; 3 |
| 4 | Instructor X wanted students to ask questions whenever needed during the course. | | | | 2 | 1; 3 |
| 5 | Instructor X wanted me to be successful in his/her course and as a future teacher. | | | | 2 | 1; 3 |
| 6 | The pictures/slides embedded in the video were important to my understanding of the content that Instructor X was trying to convey. | | | | | 1; 2; 3 |

Question Set #3: Instructor Y

- | # | Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|--|-------------------|----------|---------|-------|----------------|
| | After watching this video, I believe: | Disagree | | | | Agree |
| 1 | Instructor Y showed a sense of humor and this made me feel more at ease about taking the course (i.e., if you were going to be taking the course). | | | | 1; 2 | 3 |
| 2 | Instructor Y wanted to know more about me. | | | | 1; 2 | 3 |

3	I enjoyed learning about Instructor Y and it made me feel more at ease about taking the course (i.e., if you were going to be taking the course).	1; 2	3
4	Instructor Y wanted us to ask questions whenever needed.	1; 2	3
5	Instructor Y wanted me to be successful in his/her courses and as a future teacher.	2	1; 3
6	The pictures/slides embedded in the video were important to my understanding of the content that Instructor Y was trying to convey.	1; 2	3

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

Question Set #4: Instructor X

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	If this video was in Module 1 of a course I was taking with Instructor X, I believe viewing it would have:					
1	Helped me feel that I knew Instructor X better.				2	1; 3
2	Helped me build a stronger instructor-student relationship more quickly.				2; 3	1
3	Supported my phoning or emailing with questions more quickly.		2	1		3
4	Supported my success in classroom discussion modules.				1; 2	3
5	Supported my success on dropbox assignments.		2		1; 3	
6	Supported my overall success in the course.				1; 2	3

Question Set #4: Instructor Y

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	If this video was in Module 1 of SPED 535 when I took the course, I believe viewing it would have:					

1	Helped me feel that I knew Instructor Y better.		1; 2	3
2	Helped me build a stronger instructor-student relationship more quickly.		1; 2	3
3	Supported my calling or emailing with questions more quickly.	2	1	3
4	Supported my success in classroom discussion modules.		1; 2	3
5	Supported my success on dropbox assignments.		1; 2	3
6	Supported my overall success in the course.		1; 2	3

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

Appendix 2:

Content Videos

Question Set #1: Instructor X

Video Content: Formative Assessment

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Instructor X's examples of formative assessment were helpful to my understanding of how to create them and what they should like it.				2	1; 3
2	Instructor X seems welcoming and supportive.				2	1; 3
3	Instructor X seems knowledgeable and caring.				2	1; 3
4	Instructor X seems to understand the importance of her relationship with students in an online course.				1; 2	3
5	Instructor X would like students to understand the importance of assessment to their future teaching.				2	1; 3
6	I would feel more comfortable using self-created videos with my future students, such as in flipping the classroom.		1; 2			3

*Question Set #1: Instructor X***Video Content: Reliability and Validity**

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	After watching this video, I believe:	Disagree				Agree
1	Instructor X's explanation using examples, such as the bathroom scale and the circumference of someone's head, of reliability and validity were helpful to my understanding of these educational concepts.				1; 2	3
2	Instructor X seems welcoming and supportive in the video.				1; 2	3
3	Instructor X seems knowledgeable and caring in the video.				1; 2	3
4	Instructor X seems to understand the importance of her relationship with students in an online course.				1; 2	3
5	Instructor X would like us to understand the importance of reliability and validity to our future teaching.				1; 2	3
6	I would feel more comfortable using self-created videos with my future students after viewing this video, such as in flipping the classroom.		1; 2			3

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

*Question Set #2: Instructor X***Video Content: Formative Assessment**

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	After watching this video, I believe:	Disagree				Agree
1	I would feel more comfortable teaching my future students how to use videos during projects.		1; 2			3

- | | | | |
|---|---|------|---------|
| 2 | I enjoyed learning about Instructor X's teaching experiences. | 1; 2 | 3 |
| 3 | Knowing that an instructor finds a chapter lacking in clarification and then clarifying it would be helpful to my understanding. | | 1; 2; 3 |
| 4 | Instructor X seems passionate about teaching and learning. | 1; 2 | 3 |
| 5 | The definition about formative assessment that Instructor X shared visually was helpful to my understanding of formative assessments. | 1; 2 | 3 |
| 6 | The video helped me understand how formative assessment is used to guide future learning or using assessment <i>for</i> learning. | 1; 2 | 3 |

Question Set #2: Instructor X

Video Content: Reliability and Validity

- | # | Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|-------------------|----------|---------|-------|----------------|
| | After watching this video, I believe: | | | | | |
| 1 | I would feel more comfortable teaching my future students how to use videos during projects. | | 1; 2 | | | 3 |
| 2 | Dr. X's explanation using examples of reliability and validity that can be used in the classroom were very helpful to my understanding of these educational concepts (e.g., alternative forms of a test for different classes). | | | | 1; 2 | 3 |
| 3 | The conclusion that Dr. X gives at the end of the video was helpful to my remembering how to use both reliability and validity in the classroom. | | | | 1; 2 | 3 |
| 4 | Dr. X seems passionate about teaching and learning. | | | | 1; 2 | 3 |

- | | | | |
|---|--|------|---|
| 5 | The definitions for validity and reliability that Dr. X shared visually were helpful to my understanding of these terms. | 1; 2 | 3 |
| 6 | The video helped me understand more about reliability and validity and how to use them. | 1; 2 | 3 |

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

Question Set #3: Instructor X

Video Content: Formative Assessment

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	After watching this video, I believe:					
1	Instructor X showed a sense of humor and this made me feel more at ease about taking the course (i.e., if you were going to be taking the course).				2	1; 3
2	That I understand much more about being a learning-oriented teacher and how to use formative assessments to guide future student learning.				1; 2; 3	
3	I enjoyed learning about Instructor X and it made me feel more at ease about taking the course (i.e., if you were going to be taking the course).				1; 2; 3	3
4	Instructor X wanted us to ask questions whenever needed.				2	1; 3
5	Instructor X wanted me to be successful in his/her course and as a future teacher.				2	1; 3
6	The pictures/slides embedded in the video were important to my understanding of the content that Instructor X was trying to convey.				2	1; 3

*Question Set #3: Instructor X***Video Content: Reliability and Validity**

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	After watching this video, I believe:					
1	Instructor X showed a sense of humor and this made me feel more at ease about taking the course (i.e., if you were going to be taking the course).				1; 2	3
2	That I understand much more about reliability and validity and how they are used by classroom teachers.				1; 2	3
3	I enjoyed learning about Instructor X and it made me feel more at ease about taking the course (i.e., if you were going to be taking the course).				1; 2	3
4	Instructor X wanted us to ask questions whenever needed.				1; 2	3
5	Instructor X wanted me to be successful in his/her course and as a future teacher.				1; 2	3
6	The pictures/slides embedded in the video were important to my understanding of the content that Instructor X was trying to convey.				1; 2	3

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.

*Question Set #4: Instructor X***Video Content: Formative Assessment**

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	If this video was present in a course I was taking with Instructor X, I believe viewing it would have:					
1	Helped me feel that I knew Instructor X better.				1; 2; 3	
2	Helped me build a stronger instructor-student relationship more quickly.				1; 2	3

3	Supported my calling or emailing with questions more quickly.	2	1;	3
4	Supported my success in classroom discussion modules.		1; 2	3
5	Supported my success on dropbox assignments.	2	1;	3
6	Supported my overall success in the course.		1; 2	3

*Question Set #4: Instructor X***Video Content: Reliability and Validity**

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	If this video was present in a course I was taking with Instructor X, I believe viewing it would have:					
1	Helped me feel that I knew Instructor X better.				1; 2	3
2	Helped me build a stronger instructor-student relationship more quickly.				1; 2	3
3	Supported my calling or emailing with questions more quickly.			1; 2		3
4	Supported my success in classroom discussion modules.				1; 2	3
5	Supported my success on dropbox assignments.		2		1	3
6	Supported my overall success in the course.				1; 2	3

Note: The numbers correspond to Case Study Students 1, 2, or 3 respectively.