Evaluation of Response Modality in Online Discussion Boards

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Evaluation of Response Modality in Online Discussion Boards

by

Tatiyanna A. Dunn

A thesis submitted in partial fulfillment of the requirements for the degree of
Master of Science
with a concentration in Applied Behavior Analysis
Department of Child and Family Studies
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University of South Florida

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Keywords: student response, online higher education, text and video discussions

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ABSTRACT

Since 2020, over 3 million students have enrolled in a postsecondary distance learning course (National Center for Education Statistics, 2020). One challenge in distant learning is fostering student engagement. Student engagement is a broad construct that refers to increasing contact between three pillars of education. Students, teachers, and course material. Past research has shown increasing engagement leads to improved student performance and instructor evaluations. Unsurprisingly, promoting student engagement is desirable for both students and instructors (Cobb, 2009). Discussion boards allow student engagement between themselves and Instructors while knowledge can still be tested. Few studies have evaluated the modality of student responses (e.g., text, picture, video) and potential effects on student engagement. The present study evaluated the effects of the structure of discussion boards and further assessed student preference for response modalities.
CHAPTER ONE:
INTRODUCTION

In 2020, over 3 million students enrolled in a postsecondary distance learning course (National Center for Education Statistics, 2020). Two concerns with attending class online are students contacting the academic material and communication between students and instructors (Cobb, 2009). Engagement within online environments differs from face-to-face instruction in terms of collaborative learning. Collaborative learning involves a group of individuals working together to solve a problem, complete a task, or create a product (Laal & Laal, 2012). The use of collaborative learning has changed due to a shift away from the traditional instructor or lecture-centered format of college class (Smith et al., 1992). This change may have evolved as a way to focus on the application of what is being taught to students. However, this does not mean the instructor or lecture-centered format is not utilized but may occur in combination with collaborative learning.

Developing a collaborative learning environment may help to facilitate student learning via active participation with course content, peers, and developing their own content to ultimately increase overall engagement (Qureshi et al., 2021). This type of learning may be difficult for instructors to create and maintain in online environments. Students may pick online classes with the expectation to teach themselves but still need immediate feedback facilitated through in-person instructional guidance (Xu & Xu, 2019). Course enrollment can be affected by the level of difficulty, importance, or if the class is appropriate to complete via online instruction. Students may have different experiences between in-person and online instruction, which can
affect collaborative learning and student engagement in these settings. Student engagement involves students contacting assigned course material, turning in assigned course work, and being involved in discussions with peers and instructors (Dixson, 2015). Online student engagement includes how actively a student participates in an online setting by the amount of effort to access their course material, its completion, and interactions with peers and instructors. Student engagement encompasses how students engage with their instructor and how they engage with each other (Cabrera et al., 2002).

There has been limited research conducted on student-to-student interactions in classes (Bernard et al., 2009; Martin & Bolliger, 2018; Sher, 2009). As an exception, Martin and Bolliger (2018) examined perceptions of engagement for students enrolled in an online course. The researchers conducted a survey with 155 students. The survey consisted of questions related to student-to-student, student-to-instructor, and student-to-content engagement strategies. Student-to-student engagement described interactions between peers in relation to course content. Student-to-instructor engagement described interactions between students and their instructors in relation to the course. Student-to-content engagement described how students contacted assigned course material. The researchers identified students reported feeling less isolated when courses had more opportunities for student-to-student engagement. However, the researchers assessed students’ values on the engagement of online learning for student-to-instructor, student-to-student, and student-to-content engagement. Eighty percent of students valued the use of ice breakers as a form of introduction in the classes (p. 211). Other values that were important to students were working collaboratively with their peers using online communication tools (70%) and choices made throughout the course, such as for readings and discussion groups (60%). Understanding how students interact with each other in a course,
especially those facilitated online, can help create a sense of community and increase opportunities to learn from peers.

Bernard et al. (2009) conducted a meta-analysis of three types of interactions (i.e., student-to-student, student-to-instructor, and student-to-content interactions) in online courses. The researchers found less than 14% of the seventy-four studies included in their meta-analysis evaluated student-to-student interactions. Student interactions usually occurred among individual students or in small groups and were beneficial for learning and motivational support among students. The researchers only reported on other interactions (i.e., student-to-instructor and student-to-content interactions), which can occur in online distance education and has been researched substantially more than student-to-student interactions. Bernard et al. (2009) also mentioned how geographical location can potentially hinder interactions between students. Using discussion boards might be one way to help students feel like they belong to a community who are learning the same content and sharing their experiences (Sher, 2009).

Assessing engagement within discussion boards is important because they are primarily used for communication in university settings (Covelli, 2017) and are not affected by time zone differences (Sher, 2009). Discussion boards are often used in asynchronous online courses to facilitate interactions between students and instructors (Aloni & Harrington, 2018). Students may engage in conversations about course content and respond to peers. Discussion boards also allow students to respond to posed questions and peers without any time or location-specific constraints. A common concern discussed by researchers is isolation and lack of presence in online courses (Oyarzun et al., 2018). Comparatively, in face-to-face courses discussion boards are used either before or after a class session to promote engagement and further discussion on course content (Oyarzun et al., 2018). Discussions online are typically hosted through
synchronous or asynchronous forms, like video calls or discussion boards. Online instruction and face-to-face instruction have been shown to be effective in delivery of course content for students to interact with content, but can be difficult to simulate active engagement in online instruction (Oyarzun et al., 2018). Presence in online instruction can be mediated using different forms of media to communicate within online instructional settings.

Discussion board assignments can be completed via text and other multimedia functions, like video, pictures, or audio, to help facilitate communication between students and instructors (Kerbritchi et al., 2017). Parson et al. (2009) assessed the use of audio podcasts and video vodcasts (i.e., video-based podcast). One hundred and sixty-seven students were given a survey and asked a series of questions regarding multimedia usage in their course. Students reported the use of both audio podcasts and video vodcasts were beneficial for learning course material. Parsons et al. (2009) reported students preferred using vodcasts compared to podcasts, but both were still useful when used in combination to facilitate learning course content and engagement.

Furthermore, Parsons et al. (2009) found students preferred to engage with their peers’ posts via videos instead of reading textual posts. Students may prefer the use of other forms of media besides text as demonstrated in the previous study. Clark et al. (2015) evaluated student preference for either a text or video-based discussion forma. The researchers randomly assigned students to either a text-based discussion platform or a video-based discussion platform during an online teacher education course. Halfway through the semester, students switched discussion platforms and once the course concluded, all students were asked to complete a survey. The results from the survey indicated students preferred video-based discussion platforms compared to text-based discussion platforms. Clark (2015) is the only known study to assess student choice in discussion post
modality between text-based or video-based formats. Evaluating choice in online higher education settings could result in determining student preference of discussion board completion and result in increased course engagement and improved student learning.

A number of studies have evaluated ways to increase student engagement in classes. MacNaul et al. (2021) conducted a study with graduate students to evaluate the effects of assignment choice on academic performance. A choice and no-choice condition were used to evaluate student performance on practice assignments. The choice condition consisted of students having the option to either complete flash cards or a study guide assignment. The no-choice condition consisted of the instructor assigning either flash cards or a study guide for students to complete. The flash cards and study guides contained material related to weekly course content and were presented concurrently in Canvas. The results showed there was no preference for either assignment and no effect on weekly quiz scores. These results suggest students will complete assignments regardless of preference. It could be that both assignments were similarly preferable to students.

A study conducted by Evans et al. (2021) evaluated the use of an interdependent group contingency to increase engagement with online graduate students. Students were separated into groups according to the number of pages they viewed on Canvas. Each member of the group had to view at least one page of their weekly module for six days of the week in order for the group to receive extra credit to apply towards a quiz grade. Extra credit was not given if a member of the group did not meet the predetermined criterion of accessing the course page six days during the week. The results from this study showed the use of the interdependent group contingency was not effective in increasing engagement with course pages. The average days logged in did increase slightly during intervention, but not enough to show a significant effect. Thus, these
results suggest using an interdependent group contingency to increase online course engagement may not be effective in increasing course and group engagement.

To effectively measure engagement within online courses, further studies on course design need to be researched. This is even more crucial in online courses given the substantial increase in students enrolling in virtual instruction (Ryan, 2018). Since discussion boards are frequently used in online instruction, expanding the results of the Clark et al. (2015) study may be helpful in determining how the modality of discussion board posts affects student engagement in courses. Therefore, the purpose of this study was to evaluate how response modalities within discussion boards affected course engagement among graduate students. Specifically: (1) Did text or video affect how students engaged with others through the use of discussion posts, (2) Did students prefer one modality over another and, (3) did instructors prefer one modality over another?
CHAPTER TWO:

METHOD

Participants

The participants in this study consisted of three classes enrolled in an online master’s program in Applied Behavior Analysis (ABA). Each class consisted of a different online ABA course and content did not overlap across courses. Class 1, 2, and 3 consisted of 22, 23, and 26 students, respectfully. All of the courses were fully asynchronous, remote, 8 weeks long, and had different instructors. The participants were required to meet bi-weekly as a participation requirement for their practicum class they were enrolled in simultaneously. Class 1 was Behavior Analysis and Developmental Disabilities. Class 1 did not include a follow up into a subsequent course as it was the final course before graduation. Class 2 was Functional Assessment. Class 3 was Ethics in Applied Behavior Analysis. Class 3 had the choice condition reimplemented in this cohort’s subsequent 8-week class, Practicum Seminar. All classes had similar formats and instructional activities, including weekly discussion board assignments, weekly quizzes, and weekly study guides.

Recruitment Procedures

Instructors were contacted via email with a brief description of the study. Instructors and their students were eligible for the study if the instructor agreed with the procedures described within the email.
Target Behavior and Measurement

The frequency of student replies to peer discussion submissions was the primary target behavior. A student reply was defined as the occurrence of the student submitting a comment to a peer’s initial discussion post. The primary measure of this study was collected by frequency of student replies within a discussion board. A secondary measure was the grade given for the replies for each student. This measure was evaluated by recording the student grades for the peer reply portion of the assignment. A rubric for the assignment instructed students of how to reply to other students’ discussion posts. The rubric was provided to students within their discussion board course assignments (See Appendix A for the rubric). The weekly discussion board consisted of a prompt created by the instructor and instructed the student to complete a discussion post as either a text post or a video post and to submit two text replies (Appendix B and C). Data for text replies were collected using a data sheet where observers recorded the number of replies made by students and the grade given for the two replies associated with the assignment was noted (Appendix D). The percentage of students submitting the assignment was calculated by dividing the number of students who submitted the assignment by the total number of students and the average grade for the assignment was calculated by adding all student grades and dividing by the total possible points of all students then multiplying by 100.

Canvas

Canvas (Canvas Overview, n.d.) is Learning Management System (LMS) universities use to host online courses. All students can view icon options for their classes and organizations they are enrolled in. On their dashboard it displays a calendar with their class schedule, future assignments, due dates, and class wide messages. Class pages are structured to show announcements, modules, assignments, discussions, grades, and quizzes on the left-hand side of
the website. Students can view graded assignment feedback by navigating to the grades page, clicking on a graded assignment, and the feedback will display on the right-hand side of the screen with the name of the instructor who provided the feedback.

**Interrater Agreement**

Student replies and grades for replies were independently scored by a primary and secondary rater. Each rater independently scored each occurrence of a student’s reply to a discussion post created by a peer and the grade given for the reply. Raters were briefly trained on how to score each occurrence of student replies and how to grade them. Replies to the discussion boards made by instructors were excluded from the frequency of student replies. An agreement between the raters was counted if both raters recorded the same number of replies per student and the grade for each reply was scored as an agreement if the same grade was scored (both observers score a 5). If raters did not record the same grade, then it was scored as a disagreement. Grades given were completed by teaching assistants for each class and served as raters for the intervention. Trial-by-trial agreement was calculated by dividing the total number of trial agreements by the total number of trials and multiplying by 100 (Cooper et al., 2020). Interrater agreement (IRA) was assessed for 33% of student replies to discussion posts and student grades for each class. IRA for replies to discussion posts was 100% for Classes 1, 2, and 3. IRA for student grades was 99.4% for Class 1, 97% for Class 2, and 98% for Class 3.

**Procedural Integrity**

A task analysis (TA) was used describing text and video condition procedures (see Appendix E and F) to collect treatment integrity. The researcher had access to all of the Canvas courses and recorded if all steps in the TA occurred. A second data collector who was already a teaching assistant for the course and had access to all course content collected interrater
agreement on procedural integrity for 33% of each condition. Procedural integrity was calculated by dividing the number of steps completed by the total number of steps and multiplying by 100 (Cooper et al., 2020).

**Experimental Design and Procedure**

An alternating treatments design was used to evaluate the effects of the intervention on student replies to peer discussion posts. The conditions were alternated between text and video conditions in a counter balanced format across classes.

**Text Condition**

Students were assigned a discussion board assignment each week of the semester. Students were instructed to make an initial text post in response to a discussion topic and reply to two peers’ posts using text. Instructions and a rubric were provided within the discussion board outlining how students were to complete the assignment and reply to their peers. Students had three days to make their initial text posts and submit them on Wednesdays by 11:59 p.m. After the initial text post, students had four days to submit text replies, and these were due on Sundays by 11:59 p.m. Discussion boards were closed at 11:59 p.m. on Sundays and students were not able to make additional submissions.

**Video Condition**

Discussion boards were programmed in the same format in regard to days for submissions and instructions as the text condition, but all initial posts from students were to be made as video submissions in Canvas. See Appendix G with complete instructions given to students for recording and uploading a video. Students viewed their weekly discussion topic as stated in the posted instructions for the discussion board of the week. Initial video posts were due on Wednesdays and the text replies were due on Sundays. The rubric remained the same as in the
text condition, which outlined how to complete the discussion posts. On Sundays at 11:59 p.m. discussion boards were closed, and students were not able to make additional submissions.

*Choice Condition*

Students were presented with a choice between the aforementioned text and video conditions in their discussion boards. Students were presented with a discussion prompt in a similar format as the previous conditions with the instruction to choose either text or video to complete their initial post. Deadlines for the initial post and replies were consistent with previous text and video conditions. The choice condition occurred during the last one to two weeks of the initial course for Classes 1 and 2 and in the two to three weeks of the immediately following course for Classes 2 and 3. Class 3 was exposed to the condition at the onset of their first course and during their follow-up course. The choice condition was used to determine student preference in response modality for completing their initial post.

*Social Validity*

Two different aspects of social validity were measured. First, student preference for response modality of initial discussion posts was evaluated during the choice condition. Second, students and instructors completed social validity questionnaires to assess the acceptability of the intervention (Appendices H and I, respectively). The social validity questions and formatting were based on Wolf (1978) and Groves and Hover (2019). The questionnaires used a 5-point Likert-type scale with open and closed-ended questions. The student questionnaire was provided to students toward the end of the first course via Qualtrics. By the end of the course, students had experienced two weeks of the choice condition. The instructor questionnaire was sent via email with a link to access the survey.
CHAPER THREE:

RESULTS

Class 1

Figure 1 displays results for frequency of replies for both text and video conditions for
Class 1. Responding during both text and video conditions demonstrated students responded
similarly regardless of the condition across all weeks. Figure 2 demonstrates percentage of initial
posts given two opportunities to respond with either text or video for Class 1. The graph shows
student response allocation was almost exclusively towards completing the initial discussion post
via text.

Class 2

Figure 3 displays frequency of replies for text and video conditions for Class 2.
Responding within the alternating conditions was similar showing no change in level or
variability across conditions. Figure 4 shows the results for percentage of initial posts for class 2.
Response allocation was almost exclusively towards completing initial discussion posts via text.

Class 3

Figure 5 displays frequency of replies for Class 3. Class 3 was exposed to a choice
condition before the forced choice alternations. In the choice condition, student response
allocation was exclusively towards the text condition. In the forced choice condition alternating
between text and video, student responding was similar, showing no change in level or
variability. Experimental control was demonstrated in the choice conditions as there was a clear separation between the video and text conditions, showing text was highly preferred by students.

**Student Social Validity Questionnaire**

Results from the student open- and close-ended social validity questionnaires are displayed in tables 1 and 2. Table 1 shows the results from the survey distributed to students upon the completion of the intervention. Fifty-eight percent of students reported completing text-based discussions were achievable and 56% of students reported they enjoyed using text posts to complete discussion boards. Thirty-eight percent of student reported disagreeing with the statement of completing text posts were time-consuming and 35% of students reporting feeling more creative using text posts. Thirty-eight percent of student reported neutrally to the statement of feeling engaged with peers through video posts and 35% reported feeling more engaged with course content using text posts. Refer to Table 1 for the complete close-ended question survey results for the students.

Table 2 displays the results from the open-ended question portion of the survey distributed to students. Thirty students reported preference for video discussions with overall positive notions about completing video discussion posts such as being able to familiarize themselves with other students. Twenty students reported not preferring video discussions because of the feasibility of completing video discussion posts such as the amount of time to upload to Canvas. Twenty-three students reported their preference for text discussions related most to the feasibility of completing text discussion posts such as being able to read how their peers responded to prompts. Twenty-two students reported non-preference of text discussions as overall negative notions about completing text discussion posts such as length of posts varied among peers, which affected their perception of engagement. There were six other comments
related to text and video discussions reporting overall positive notions about completing text and video discussion posts pertaining to choice, including preference for the option of how to complete their posts for that week. Refer to Table 2 for the complete open-ended question survey results for the instructors.

**Instructor Social Validity Questionnaire**

Results from the instructor open- and close-ended questionnaires are displayed in tables 3 and 4. All of the instructors (100%) reported agreement with increasing student engagement being an appropriate goal in an online course. Sixty-eight percent of the instructors disagreed with students appearing to enjoy using video posts. All of the instructors (100%) reported feeling neutral about student engagement increasing while the intervention was in place. Refer to Table 3 for the complete close-ended question survey results for the instructors.

Table 4 displays the results from the open-ended question portion of the survey distributed to instructors. All of the instructors reported their preference for video discussions with overall positive statements about students completing video discussion posts, such as being able to watch the videos was enjoyable. All of the instructors reported non-preference for video discussions because of feasibility of students completing video discussions, such as technical issues with student uploads and time consuming to grade. All of the instructors reported feasibility of students completing text discussion posts being of importance related to preference for text discussions. Overall, all of the instructors reported negative notions about students completing text discussion posts concerning non-preference for text discussions. Two instructors reported other comments relating to text and video discussions were about feasibility of students and video discussion posts, more specifically student response effort being of importance to consider.
Figure 1. This graph shows the frequency of replies results for Class. Note, open circles represent video condition and closed circles represent text condition.
Figure 2. This graph shows the percentage of initial posts for Class 1. Note, White bars are percentage of initial posts completed as video posts when students were provided with a choice in weeks 7 and 8. Black bars are percentage of initial posts completed as text posts.
Figure 3. This graph shows the frequency of replies for Class 2. Note, open circles represent video condition and closed circles represent text condition.
Figure 4. This graph shows the percentage of initial posts for Class 2. Note, White bars are percentage of initial posts completed as video posts when students were provided with a choice in weeks 7 thru 10. Black bars are percentage of initial posts completed as text posts.
Figure 5. This graph shows the frequency of replies for Class 3. Note, open circles represent video condition and closed circles represent text condition.
<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoyed using video posts to complete discussion boards.</td>
<td>29.1</td>
<td>18.8</td>
<td>27.1</td>
<td>25</td>
<td>N/A</td>
</tr>
<tr>
<td>I enjoyed using text posts to complete discussion boards.</td>
<td>2.1</td>
<td>4.2</td>
<td>16.7</td>
<td>20.8</td>
<td>56.2</td>
</tr>
<tr>
<td>The expectation of completing video discussion posts was achievable.</td>
<td>2.1</td>
<td>10.4</td>
<td>25</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>The expectation of completing text discussion posts was achievable.</td>
<td>N/A</td>
<td>N/A</td>
<td>4.2</td>
<td>37.5</td>
<td>58.3</td>
</tr>
<tr>
<td>Completing video posts was time-consuming.</td>
<td>10.4</td>
<td>18.8</td>
<td>12.5</td>
<td>29.2</td>
<td>29.2</td>
</tr>
<tr>
<td>Completing text posts was time-consuming.</td>
<td>10.4</td>
<td>37.5</td>
<td>29.2</td>
<td>18.1</td>
<td>4.2</td>
</tr>
<tr>
<td>I felt more engaged with my peers using video posts.</td>
<td>27.1</td>
<td>18.8</td>
<td>37.5</td>
<td>12.5</td>
<td>6.3</td>
</tr>
<tr>
<td>I felt more engaged with my peers using text posts.</td>
<td>4.2</td>
<td>16.7</td>
<td>27.1</td>
<td>35.4</td>
<td>16.7</td>
</tr>
<tr>
<td>I felt more engaged with the course content using video posts.</td>
<td>16.7</td>
<td>20.8</td>
<td>33.3</td>
<td>20.8</td>
<td>6.3</td>
</tr>
<tr>
<td>I felt more engaged with the course content using text posts.</td>
<td>2.1</td>
<td>6.3</td>
<td>35.4</td>
<td>39.6</td>
<td>16.7</td>
</tr>
<tr>
<td>I felt more creative using video posts.</td>
<td>29.2</td>
<td>35.4</td>
<td>18.8</td>
<td>14.6</td>
<td>6.3</td>
</tr>
<tr>
<td>I felt more creative using text posts.</td>
<td>2.1</td>
<td>25</td>
<td>18.8</td>
<td>37.5</td>
<td>16.7</td>
</tr>
</tbody>
</table>
**Table 2.** Survey results from the open-ended student social validity questionnaire.

**Results from Open-Ended Student Social Validity Questionnaire**

<table>
<thead>
<tr>
<th>Themes of Preference for Video Discussions Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall positive notions about completing video discussion posts</td>
</tr>
<tr>
<td>- Since we are an online program it was nice to see everyone's face outside of our bi weekly meetings!</td>
</tr>
<tr>
<td>- Practice video presentations.</td>
</tr>
<tr>
<td>Feasibility of completing video discussion posts</td>
</tr>
<tr>
<td>- Felt like it was easier to express my thoughts via video versus typing, reviewing, etc.</td>
</tr>
<tr>
<td>- I was able to talk about the topic faster than if I were have to type an answer. My mind moves faster than my fingers so I was able to get my points across faster with the videos.</td>
</tr>
<tr>
<td>Overall negative notions about completing video discussion posts</td>
</tr>
<tr>
<td>- I don’t like it.</td>
</tr>
<tr>
<td>- I wasn't a fan of the video postings.</td>
</tr>
<tr>
<td>Other statements not pertaining to video discussions</td>
</tr>
<tr>
<td>- I honestly did not like it at all.</td>
</tr>
<tr>
<td>- I did not like anything about video responses.</td>
</tr>
<tr>
<td>Statements referring to technological issues</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Themes of Non-Preference for Video Discussions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility of students completing discussion posts</td>
</tr>
<tr>
<td>- I had to do multiple re-takes to get the perfect discussion which became frustrating and I felt that I wasn't putting out my best work after countless re-tries.</td>
</tr>
<tr>
<td>- Depending on the location, it is sometimes difficult to record.</td>
</tr>
<tr>
<td>Overall negative notions about completing video discussion posts</td>
</tr>
</tbody>
</table>
Table 2 (Continued)

- The content required for discussion posts is very specific and requires research, etc., which makes it difficult to naturally respond in a video response. I found myself writing a script and reading directly from that during my video post. This aspect makes the videos feel less engaging. I prefer reading and writing to listening to my peers' responses in videos.
- Sometimes I found it hard to cover all points of the discussion requirements, but I found ways to assist by writing down notes or having my notes up on a different screen, to keep me on topic.

Statements referring to technological issues
10

- There would be times when I recorded the video through canvas and it would not upload and I would lose the video and have to record again.
- It takes a long time and canvas always has issues uploading them and i feel like it’s busy work.

Other statements not pertaining to video discussion posts
3

- Nothing- I like the option of video or text.
- Nothing.

Overall positive notions about completing video discussion posts
1

- Nothing- I actually prefer video format.

Themes of Preference for Text Discussions

Feasibility of completing text discussion posts
23

- Able to edit and take your time.
- I was able to do the response in public places.

Overall positive notions about completing text discussion posts
22

- They are easier for me to complete than video responses.
- It forced me to think more intently about the content.

Overall negative notions about completing text discussion posts *
2

- Don’t like much about it.
- I don’t like them.
Table 2 (Continued)
Other statements not pertaining to text discussion posts *
2

- Don't like much about it.
- I don’t like them.

Statements referring to technological issues
0

Themes of Non-Preference for Text Discussions
Overall negative notions about completing text discussion posts
22

- Replying to peers with questions can be difficult sometimes.
- Discussions could be dry.

Feasibility of completing text discussion posts
12

- Time constraints (resources to read).
- I do not like how time consuming they are, but sometimes certain writing prompts are not super involved.

Overall positive notions about completing text discussion posts
7

- I preferred text responses, there isn't anything that I liked least about them.
- They were great.

Other statements not pertaining to text discussion posts
6

- N/A
- The text really is not a big deal, there wasn't really anything I didn't like about it.

Statements referring to technological issues
0

Other Comments Related to Text and Video Discussions
Overall positive notions about completing text and video discussions posts (choice)
6

- I liked the intertwined/switch up each week, as well as options of choosing which method.
Table 2 (Continued)

- I like the option of one or the other rather than post xyz. I think presenting the option increased my interest of completing the discussion board.

Feasibility of completing text discussion posts related to peer comments

5

- I think the peer responses are too much of a requirement. I understand needing to respond is common in college courses, but a brief response should suffice. Along with all of our other responsibilities, a paragraph peer response seems a little silly.
- I do not feel like discussion posts should be required every week. It adds a lot of work load that I do not always think is very important.

Other statements not pertaining video and text discussion posts (N/A)

3

- Not a fan but understand why we do them.
- I prefer text over video responses. This semester, the video responses were manageable and appropriate, but I prefer to have far less video responses than text.

Overall negative notions about completing text and video discussion posts (frequency and content)

2

- Having one to two discussion posts every single week becomes redundant and makes interacting with peers aversive. I feel discussion posts should be made biweekly and students may feel more inclined to interact with peers. Having them every week just makes students focus on simply the grade they are getting, not the interaction with other students.
- Discussion posts have been informative, but I would like to see more exciting or outside of the box prompts to get students to really think about their responses. I wish students shared more of their personal experiences, then just citing ideas out of the text books. If the prompts were targeted more towards personal experiences then it would give others an idea of what is really happening out in the field. This would then really branch off in how to implement some of the ideas the text books offer and help students utilize these skills in real life scenarios.

Statements referring to technological issues

N/A

Note. Sample student responses from each question was included from the 47 student respondents. A * means a response has been coded under two categories.
Table 3. Survey results from the close-ended instructor social validity questionnaire.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing student engagement is an appropriate goal in an online course.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>100</td>
</tr>
<tr>
<td>Student engagement involves how students interact with instructors and each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternating text and video discussion boards was an appropriate intervention to increase student engagement.</td>
<td>N/A</td>
<td>N/A</td>
<td>66.7</td>
<td>33.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Alternating text and video discussion boards was easy to implement.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>33.3</td>
<td>66.7</td>
</tr>
<tr>
<td>Student engagement increased while the intervention was in place</td>
<td>N/A</td>
<td>N/A</td>
<td>100</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>I enjoyed implementing the intervention in my course.</td>
<td>N/A</td>
<td>N/A</td>
<td>33.3</td>
<td>66.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Students appeared to enjoy using video posts.</td>
<td>N/A</td>
<td>66.7</td>
<td>N/A</td>
<td>33.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Students appeared to enjoy using text posts.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>66.7</td>
<td>33.3</td>
</tr>
<tr>
<td>Grading video posts was time-consuming.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>66.7</td>
<td>33.3</td>
</tr>
<tr>
<td>Grading text posts was time-consuming.</td>
<td>N/A</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td>N/A</td>
</tr>
<tr>
<td>I felt there was more engagement among the students with discussions that used video posts.</td>
<td>N/A</td>
<td>33.3</td>
<td>66.7</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>I felt there was more engagement among the students with discussions that used text posts.</td>
<td>N/A</td>
<td>N/A</td>
<td>66.7</td>
<td>33.3</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Table 4. Survey results from the open-ended instructor social validity questionnaire.

Results from Open-Ended Instructor Social Validity Questionnaire

<table>
<thead>
<tr>
<th>Themes of Preference for Video Discussions</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall positive notions about students completing video discussion posts</td>
<td>3</td>
</tr>
<tr>
<td>I was able to see my students and hear then discuss topics from our course. It seemed more personal, which is great during an asynchronous course.</td>
<td></td>
</tr>
<tr>
<td>• The nuances of student responses - more casual/natural responses, less formal.</td>
<td></td>
</tr>
<tr>
<td>• For me as instructor was enjoyable to watch their post, observe the way students present themselves and the discussion boards content. I feel this modality allows me to know them better.</td>
<td></td>
</tr>
<tr>
<td>Overall negative notions about students completing video discussion posts</td>
<td>0</td>
</tr>
<tr>
<td>Feasibility of students completing video discussion posts</td>
<td>0</td>
</tr>
<tr>
<td>Other statements not pertaining to students completing video discussion posts</td>
<td>0</td>
</tr>
<tr>
<td>Statements referring to technological issues</td>
<td>0</td>
</tr>
</tbody>
</table>

Themes of Non-Preference for Video Discussions

<table>
<thead>
<tr>
<th>Feasibility of students completing video discussion posts</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Video responses take much more time to grade/view than text. Also, students ran into technical issues resulting in having to spend more time to assist them or students having to send me discussion videos via email resulting in peers not being able to interact with their post on the discussion board.</td>
<td></td>
</tr>
<tr>
<td>• They were time consuming to grade, and sometimes students had significant amounts of background noise during their videos making it difficult to hear.</td>
<td></td>
</tr>
<tr>
<td>• It is time consuming and sometimes require you to watch the video at least twice to identify if all requirements were met.</td>
<td></td>
</tr>
</tbody>
</table>

Overall positive notions about students completing video posts | 0 |

Overall negative notions about students completing video posts | 0 |
Table 4 (Continued)

Other statements not pertaining to students completing video discussion posts
0

Statements referring to technological issues
0

Themes of Preference for Text Discussions
Feasibility of students completing text discussion posts
3

- Ease of grading and less technical issues.
- It was easier to provide specific feedback on certain sections of their discussion posts because I can easily read it (compared to rewatching the video). It was also faster to grade.
- They are easier to grade.

Overall positive notions about students completing text posts
0

Overall negative notions about students completing text posts
0

Other statements not pertaining to students completing text discussion posts
0

Statements referring to technological issues
0

Themes of Non-Preference for Text Discussions
Overall negative notions about students completing text discussion posts
2

- They can feel a bit routine and impersonal.
- You get only the answer to the prompt and less general information about the student.

Other statements not pertaining to students completing text discussion posts
1

- N/A

Overall positive notions about students completing text discussion posts
0

Feasibility of completing text discussion posts
0

Statements referring to technological issues
0
Table 4 (Continued)

**Other Comments Related to Text and Video Discussions**

Feasibility of students completing text and video discussion posts (response effort) *

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>2</td>
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</tbody>
</table>

- Students in the online program often work full time and complete their work at night. If students have children/families, it may be more challenging for them to find time to record video discussions. Video discussions also may require more time for students to complete their discussion assignment. For instance, many students would first write out their response to the discussion prompt and then have to record a video reading their discussion post opposed to just typing it out.

- Students confronted some technical issues with the videos. Sometimes they excused themselves about posting videos because health reasons. They also commented that doing videos post required to create a written post and then record the content, so they feel it was double-effort.

Overall positive statements about students completing text and video discussion posts (choice)

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<tbody>
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<td>1</td>
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</tbody>
</table>

- I would be happy to use either video or text discussion boards if students had a strong preference for one modality.

Statements referring to technological issues *

<p>| | |</p>
<table>
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<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

- Students confronted some technical issues with the videos.

Overall negative notions about students completing text and video discussion posts

<p>| | |</p>
<table>
<thead>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Other statements not pertaining to text and video discussion posts

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*Note. A * means a response has been coded under two categories.*
CHAPTER FOUR:

DISCUSSION

The purpose of this study was to evaluate how response modalities within discussion boards affected course engagement among graduate students. Students were exposed to alternating text and video conditions within an online discussion board and a minimum of one choice condition. The results showed frequency of student replies was similar between the text and video conditions. Student choice after the alternating conditions showed responses were almost exclusively completed using text.

Based on the social validity data collected from students at the end of the course, students preferred the use of text to complete their discussion boards, but still wanted a choice in modality to use when completing discussion boards. Student feasibility of completing their initial discussion board posts was the overall concern when comparing text and video. Similarly, instructors also believed the feasibility of students completing their discussion boards was a major difference between text and video. Instructors supported students having a choice, but feasibility of completing discussion boards was an important component for completion of the assignment.

This purpose of the present study was to expand upon the results of Clark (2015) by utilizing behavior analytic principles, conceptually systematic, analytic, behavioral, etc., and social validity data to determine preference in response modality among students and instructors. The result from this study depicts the engagement among students was not significantly affected by either text or video conditions when completing discussion boards. However, when students
were presented a choice of how to complete the discussion boards, the results demonstrated responding was almost exclusively towards text-only. Students and instructors reported the importance of feasibility of completion to be an important factor for preference of response modalities.

**Limitations**

With the expansion of the results from Clark (2015), there were also some limitations found within the current study, specifically the feasibility of completing the discussion boards. Because prompts were not developed or evaluated for equivalence, more response effort may have been required for students to answer a discussion prompt when compared to other discussion prompts that were posed in the course. This means some discussion boards were easier or more difficult to answer depending on the prompt presented and the week that a condition was alternated.

Another limitation to this study was familiarity with technology. To participate in online instruction, there needs to be some level of competency with using technology, which was not the case for some students. This made it difficult for students when it came to uploading videos to Canvas due to multiple technical failures that occurred in the process as they were not given explicit training on this. Technical difficulties students faced with uploading videos possibly reduced the number of opportunities that students could potentially respond to posed prompts and influenced choice and social validity outcomes given the aversiveness of video submissions.

Using videos in discussion board can be beneficial because students and teachers are able to see and hear each other’s explanations to a prompt and students are able to practice using technological speech in the class setting. An unwanted consequence to this is it requires high
response efforts from students to upload a video and facing technical difficulties, which in turn can be more effort for instructors to grade or rectify issues students face when uploading videos.

Lastly, responses to peers were made in text only. Students only responding to discussion posts made by their peers via text could make the interaction seem impersonal. A value students expressed was seeing their peers and engagement could have increased in the discussion boards if students were required or offered the choice to respond with either text or video.

**Future Research**

Some implications of this current study to be considered for future research is presenting choice at the onset of the courses and evaluate the presentation of choice without the alternation of text and video conditions. In the field of ABA, choice is an important factor considered for an individual’s right of self-determination in choice and preferences (BACB, 2020). Individuals are to be afforded the right to choose what they prefer, even in a higher education settings. This evaluation can provide insight on if student responding is affected by their learning history or if there are other variables affecting student choice. Previous exposures to discussion boards formatted to only utilize textual formats could have established a history of reinforcement of peer engagement through text. If students did not have many or preferred exposures to video formatted discussions, students could have found completing them to be aversive. Another consideration is evaluation of the current study utilizing other discussion-based platforms to facilitate online discussions. Evaluation of engagement in online discussion boards should be expanded to other platforms like Flipgrid, which utilizes video uploads as the main modality for discussions (Flipgrid, n.d.). Clark (2015) utilized two different discussion-based platforms compared to the current study, which could have been a factor affecting student preference and responding as students responded within the same platform. Future studies should continue to
assess the social validity of choice and preference of discussion board modalities to further the
literature of online higher education and behavior analysis.
REFERENCES


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https://doi.org/10.1207/s15389286ajde1603_2
https://doi.org/10.1901/jaba.1978.11-203


# Appendix A: Discussion Post Rubric - Peer Response

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Ratings</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality of Initial Post</strong></td>
<td>Initial post thoroughly addresses each prompt of the assignment, using examples from the readings and other course materials. (5 pts).</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Initial post addresses each prompt of the assignment, and uses a few examples from the readings and other course materials. (4 pts).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial post only addresses each prompt of the assignment. Minimal to no use of examples from the readings and other course materials. (3 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimal references to prompt of assignment. Does not use support from text or materials to support post. (2 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No references to prompt of assignment. Does not use support from text or materials to support post. (1 pt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial discussion post not submitted or submitted after the Wednesday deadline. (0 pts)</td>
<td></td>
</tr>
<tr>
<td><strong>Analysis/Application</strong></td>
<td>Demonstrates analysis of concepts, relationship between other concepts, and excellent use of a wide range of supporting material. (5 pts)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Demonstrates the ability to analyze and synthesize material and good use of a range of supportive material. (4 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Informed commentary with some evidence of genuine analysis; some supportive materials used. (3 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some observations, some supportive evidence used. (2 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lacks evidence of critical analysis, poor use of supportive evidence. (1 pt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable as initial discussion post not submitted. (0 pts)</td>
<td></td>
</tr>
<tr>
<td><strong>Communication Skills</strong></td>
<td>Structure of the postings is consistently clear and easy to follow. The postings are enhanced by the organization and structure. Academic tone used. Rules of grammar, usage, and punctuation are followed; spelling is correct if applicable. (5 pts)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>The structure and organization of the discussion postings are good but could be strengthened to increase the impact of the posting. Academic tone used. Rules of grammar, usage, and punctuation are usually followed; spelling is correct if applicable. (4 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Structure of the discussion postings is not easy to follow. Transitions need improvement. Academic tone used. Rules of grammar, usage, and punctuation are usually followed; spelling is correct if applicable. (3 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Structure of the discussion postings is not easy to follow. Transitions need improvement. Informal tone used. Posts contain several grammatical, punctuation, and spelling errors if applicable. (2 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of organization and structure detracts from the message of the writer. Paragraphs are disjointed and lack transition of thoughts. Informal tone used. Posts contain several grammatical, punctuation, and spelling errors if applicable. (1 pt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable as initial discussion post not submitted. (0 pts)</td>
<td></td>
</tr>
<tr>
<td><strong>Peer Response</strong></td>
<td>Student responds to two peers, elaborates on their posts, and ends response with a thoughtful question. (5 pts)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Student responds to two peers, and elaborates on their posts. (4 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student responds to one peer, elaborates on their posts, and ends response with a question. (3 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student responds to one peer, and elaborates on their posts. (2 pts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responses to peers are limited to a single commendation for a post (e.g., &quot;Nice post!&quot;) and does not add to the discussion. (1 pt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student does not respond to peers. (0 pts)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Points:</strong></td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Example Discussion Board- Text Condition

On the Discussion Board, post a response to the following prompt in text format:

You’re working with a typically developing 18-year-old male who is currently on parole. He dropped out of school at 16 and has been arrested for shoplifting three times in the past 6 months. He lives with his mother, who is a supportive figure in his life. He enjoys skateboarding with his friends and would really like a job to buy things related to this hobby. How would you assess his strengths and incorporate his interests to develop a transition plan?

In addition, respond by text to at least two of your peer's discussion posts. Submit your initial post no later than 11:59 PM EST on Wednesday, and responses to peers initial posts by Sunday, 11:59 PM EST. Use the rubric to guide the development of your post and responses.
Appendix C: Example Discussion Board- Video Condition

Post a video to the discussion board and use your own words to:

a) Define internal and external validity and
b) Explain at least 2 threats to internal validity and 2 threats to external validity

In addition, respond to at least two of your peer’s discussion posts (via text). Please use the rubric to guide the development of your posts and responses.

*Please incorporate both content lecture from this week and chapter 2 from Kazdin (2021) [the reading you already completed from Module 1] to make your post.*

Submit your initial post no later than 11:59 PM Eastern Time on Wednesday and respond by text to two peers by 11:59 PM Eastern Time on Sunday.
Appendix D: Discussion Board Assignment Data Sheet

Observer:

Date:

Course:

<table>
<thead>
<tr>
<th>Students</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
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<td>Participant 2</td>
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<td>Participant 10</td>
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<td>Participant 15</td>
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<td>Participant...</td>
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</tbody>
</table>
Appendix E: Procedural Integrity Checklist - Text Condition

Researcher: 

Course: 

Date of Assessment: 

<table>
<thead>
<tr>
<th>Statement</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>The discussion board for the module is made available by Sunday at 12 a.m.</td>
<td></td>
</tr>
<tr>
<td>The discussion board instructions detail that the initial post should be completed in a written format.</td>
<td></td>
</tr>
<tr>
<td>The assignment states all initial discussion boards should be turned in by Wednesday at 11:59 pm.</td>
<td></td>
</tr>
<tr>
<td>The assignment states two separate written responses to peers should be turned in by Sunday at 11:59 pm.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: Procedural Integrity Checklist - Video Condition

Researcher: 
Course: 
Date of Assessment: 

<table>
<thead>
<tr>
<th>Statement</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>The discussion board for the module is made available by Sunday at 12 a.m.</td>
<td></td>
</tr>
<tr>
<td>The discussion board instructions detail that the initial post should be completed in a video format.</td>
<td></td>
</tr>
<tr>
<td>The assignment states all initial discussion boards should be turned in by Wednesday at 11:59 pm.</td>
<td></td>
</tr>
<tr>
<td>The assignment states two separate video responses to peers should be turned in by Sunday at 11:59 pm.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix G: Instructions for Video Submissions

To record the video, use the following steps:

1. Click the "Reply" button to begin a discussion post
2. In the second row of buttons at the top of the post, click on the "Record/Upload Media" button
3. Under "Record Media," select the microphone and webcam you want to use
4. Click "Start Recording" and respond to the discussion board prompt. When done, click "Finish"
5. Click "Save"
6. The video will then be embedded on the discussion board
7. Complete the post by selecting "Post Reply" on the bottom right side of the screen

Alternatively, you can post a video from your computer files. To do this:

1. Click the "Reply" button to begin a discussion board post
2. In the second row of buttons at the top of the post, click on the "Record/Upload Media" button
3. Select the "Upload Media" tab near the top of the window
4. Click "Select Video File"
5. Select your computer's file from the list
6. Select "Choose"
7. The video will then be embedded on the discussion board
8. Complete the post by selecting "Post Reply" on the bottom right side of the screen
Appendix H: Social Validity Questionnaire- Student

**Instructions:** Below are statements and open-ended questions regarding the completion of discussion board posts via video or text. Please respond to the following statements. A 5 indicates you strongly agree with the statement while a 1 indicates that you strongly disagree. When finished, please click submit. All responses are recorded anonymously.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I enjoyed using video posts to complete discussion boards.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. I enjoyed using text posts to complete discussion boards.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. The expectation of completing video discussion posts was achievable.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. The expectation of completing text discussion posts was achievable.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Completing video posts was time consuming.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Completing text posts was time consuming.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. I felt more engaged with my peers using video posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. I felt more engaged with my peers using text posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. I felt more engaged with the course content using video posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. I felt more engaged with the course content using text posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. I felt more creative using video posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. I felt more creative using text posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

13. What did you like the most about posting video responses to discussion boards?

14. What did you like the least about posting video responses to discussion boards?
15. What did you like the most about posting text responses to discussion boards?

16. What did you like the least about posting text responses to discussion boards?
Appendix I: Social Validity Questionnaire- Instructor

Instructions: Below are statements regarding your participation in implementing both video and text-based discussion boards. Please respond to the following statements. A 5 indicates you strongly agree with the statement while a 1 indicates you strongly disagree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increasing student engagement is an appropriate goal in an online course. Engagement involves how students interact with other students and instructors.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Alternating text and video discussion boards was an appropriate intervention to increase student engagement.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. Alternating text and video discussion boards was easy to implement.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Student engagement increased while the intervention was in place.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. I enjoyed implementing the intervention in my course.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Students appeared to enjoy using video posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Grading video posts was time consuming.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. Grading text posts was time consuming.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. I felt there was more engagement among the students with discussions that used video posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. I felt there was more engagement among the students with discussions that used text posts.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

11. What did you like the most about video responses to discussion boards?
12. What did you like the least about video responses to discussion boards?

13. What did you like the most about text responses to discussion boards?

14. What did you like the least about text responses to discussion boards?
Appendix J: IRB Exemption Letter

NOT HUMAN SUBJECTS RESEARCH DETERMINATION

January 28, 2022

Tatiyanna Dunn
11118 Rising Mist Blvd
Riverview, FL 33578

Dear Tatiyanna Dunn:

On 1/27/2022, the IRB reviewed the following protocol:

<table>
<thead>
<tr>
<th>IRB ID:</th>
<th>STUDY003755</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Course Design Evaluation for Online Learning Arrangements</td>
</tr>
</tbody>
</table>

The IRB determined that the proposed activity does not constitute research involving human subjects as defined by DHHS and FDA regulations.

IRB review and approval is not required. This determination applies only to the activities described in the IRB submission. If changes are made and there are questions about whether these activities constitute human subjects research, please submit a new application to the IRB for a determination.

While not requiring IRB approval and oversight, your project activities should be conducted in a manner that is consistent with the ethical principles of your profession. If this project is program evaluation or quality improvement, do not refer to the project as research and do not include the assigned IRB ID or IRB contact information in the consent document or any resulting publications or presentations.

Sincerely,

Gina Larsen
IRB Manager