Student Perceptions Of The Online Discussion Board

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ABSTRACT
This research examined student perceptions of asynchronous discussion boards using the focused group methodology and an applied research approach. The research purpose was to explore what online students perceive to be worthwhile discussion board content and interactions in online college courses. Ultimately, the goal was to add to the growing body of literature that fosters a deeper understanding of how to improve teaching strategy and instructional design and increase student participation quality and quantity. The researchers recruited volunteers from closed undergraduate courses to participate in the survey. Emerging themes included concerns over busy work, excessive time requirements, overly structured discussion boards, and the importance of quality, relevance, professor involvement, and respect. To improve participation, teaching strategy, and instructional design for online courses, each of these themes should be addressed as part of the discussion board design and in the online classroom.

ABBREVIATIONS
APA: American Psychological Association.

1.0 INTRODUCTION

1.1 BACKGROUND
Online, asynchronous discussion boards are one of the most important components of an online course [1]. In the traditional face-to-face classroom, students interact in the physical classroom space and are able to see one another. In the online course, discussion boards provide a similar visible, interactive place for students to interact academically about the discussion topic, build culture, and promote social skills. Asynchronous online discussions are where students interactively process course material and build a collaborative community that is foundational for an online course's successful teaching. Discussions are also a good way to build classroom community through interactions with peers and instructors. Blackmon [2] and Clinton and Kelly [3] noted that online discussion boards were an important component of online learning, as they provide students with opportunities to discuss course material. They also serve as a checkpoint to assess students' progress in the content [4].

1.2 STUDY OBJECTIVES
This study aimed to examine student perceptions of asynchronous discussion boards to develop further best practices for improving participation within the online learning environment. The study aimed to increase understanding about what students perceive to be worthwhile discussion boards and improve teaching strategy and instructional design for online courses.

This research contributes to the increased effectiveness of online, asynchronous discussion boards for both instructors and students and can result in greater student involvement and success in learning new skills. This paper discusses the applied research effort to improve the quality of online synchronous discussion boards. Applied research intends to understand a problem, gain new knowledge specific to a problem, and help develop solutions to the problem [5].

1.3 PROBLEM STATEMENT
This research examines the impact of discussion boards on online learning. Discussion boards are critical to an asynchronous online learning environment and can greatly impact the student's learning experience. Understanding the individual factors that create a high-quality discussion board experience for students and their interrelationships is critical to continuous improvement in distance education. Research that contributes to the increased effectiveness of asynchronous online discussion boards for

instructors and students can result in greater student involvement and success in learning new skills. This research adds to the existing research in online education and the foundation for additional studies for recommended best practices in the use of asynchronous online discussion boards for both students and instructors.

2.0 METHODOLOGY

This research used focus group research to examine student perceptions of discussion boards in online learning. The researchers used the group research method to listen to participants and learn from them. Focus groups, which are informed by the research agenda and the questions determined by the researchers, build on the interaction facilitated between group participants. Focus groups are a data collection method in qualitative research that allows multiple perspectives to be shared and portrayed in small group settings [5]. The researchers utilized a single focus group to learn from the participants.

The researchers recruited volunteers from closed undergraduate courses to participate in the survey. An appropriate neutral third party distributed an email to a random group of students. Any student agreeing to participate was then cross-referenced with a list of current students by the researchers, and current students were eliminated from the list of participants. Participants were required to agree to participate by completing the consent form before they could advance to the focus group to answer the survey questions. If the participant declined to participate, they were removed from the list.

Qualitative content analysis was used to analyze student responses to three open-ended questions about their perceptions of discussion boards. Data were obtained from the transcribed notes from the focus group teleconference of undergraduate business students (N=9) at one proprietary institution. The focus group survey was administered by one of the researchers. The data was then systematically organized into phrases, sentences, or whole paragraphs and classified into categories (codes) that were then analyzed for trends.

A total of nine students participated in the Focus Group. All students in the Focus Group had taken at least 12 online courses, with 6 having more than 60 credit hours completed and one with over 180 credit hours. All participants were students from the same university and in good standing. Student participants selected one of two available Focus Group Session times. Six students participated in Session One and three in Session Two. After reviewing the purpose of the Focus Group, reminding the students that they could opt out at any time, and explaining how data would be gathered, stored, and used the session questions were asked. The participants were allowed to decline a response to any question. Further, no limits were placed on participants' responses, including word length or response time.

2.1 STUDY DESIGN

This paper discusses the applied research effort to improve the quality of online synchronous discussion boards. Applied research intends to understand a problem, gain new knowledge specific to a problem, and help develop solutions to the problem [5].

3.0 HISTORICAL BACKGROUND

Once offered almost exclusively through on-ground brick-and-mortar institutions, higher education has experienced a major shift in the past two decades. The U.S. Department of Education [6] reported that 7,313,623 students enrolled in some form of distance education courses at degree-granting postsecondary institutions in the United States. This shift to distance education, often referred to as online learning, has resulted in classroom formats that frequently include discussion boards.

Discussion boards are generally either synchronous or asynchronous. A synchronous discussion board includes at least some real-time student interaction, whereas an asynchronous discussion board allows students to communicate at times that are most convenient for them within a given period. There are advantages to each type of discussion board environment. For this study, the focus was on asynchronous discussion boards.

There are numerous advantages to students engaging in discussion board work. Cooper [7], for example, stated that discussion boards create an environment for fast-paced and engaging discussions. Although synchronous discussion boards may provide a platform similar to an on-ground classroom discussion, asynchronous discussions foster an environment that encourages critical thinking by offering a flexible and convenient format [8]. In fact, the asynchronous format enables students who may be more reserved in an on-ground or synchronous environment to be more engaged in discussions that begin with a posed question, followed by contributions from students who might be reluctant to share their ideas in a face-to-face or synchronous, online discussion environment [8]. This perspective was also shared by Levine [9], who noted that asynchronous discussions allow for heightened levels of self-expression, as students have the ability to take time to consider other people's points of view and assess their insights and reflections on topics. Levine [9] further noted that asynchronous discussions could stimulate higher levels of cognitive assessments, as students are provided an opportunity to review and reflect on topics in a format that fosters an individualized form of higher learning and self-expression.

Discussion boards in online classrooms enable students and faculty to analyze topics in myriad disciplines critically. To be effective, however, all participants must clearly understand the discussion's purpose, requirements, and limitations. A clear and detailed rubric has been shown to improve the quality of discussion board requirements in online higher education. McKinney [10] noted that students benefit from grading rubrics because they provide a roadmap and increase the clarity of expectations which is vital for students to engage in quality discussions. Pecka *et al.* [11] supported this perspective and identified numerous benefits of providing students with a discussion board rubric, including guiding learning activities, defining assignment expectations, promoting deeper learning, facilitating self-assessment, and helping to identify strengths and weaknesses.

University faculty also benefit from the use of discussion board grading rubrics. Pecka *et al.* [11] noted that rubrics contributed to clarified grading standards and reduced grading subjectivity. McKinney [10] also noted that faculty found that using a rubric contributed to less time required to grade students' work, while students found that the rubric helped them understand any feedback from their professors. Additionally, Pecka *et al.* [11] stated that faculty and students benefited from increased communication and improved discussion quality.

Not all data supports the use of grading rubrics for discussion board work. A study by Giacumo *et al.* [12] revealed that although students demonstrated an increase in higher-order thinking when required to follow a grading rubric, they performed better when they relied solely on instructor response prompts [12]. When both a grading rubric and instructor response prompts were used, students did not perform as well as the students who only had the instructor response prompts and no grading rubric [12]. So, although the use of a grading rubric contributed to better student performance than without a grading rubric, the effects of instructor-facilitated discussions were stronger when no grading rubric was used. Moreover, students' quality of writing tended to be lower when they did not receive instructor response prompts [12]. Overall, Giacumo *et al.* [12] discovered that students who were given a grading rubric for the discussion board requirement outperformed those who were not. However, the study revealed that, compared to the students who received both a grading rubric and instructor response prompts, the students who relied only upon the instructor's guidance outperformed the other students in complex thinking, the substance of discussion posts, and writing quality [12]. These findings are not completely surprising. McIsaac *et al.* [13] and Dennen [14] also found that students prefer a strong instructor presence in asynchronous discussion boards, as it contributes to the perceived credibility of the learning environment and fosters students' perceptions of social presence and relevance. Similar findings were revealed in a more current study by James *et al.* [15], where the importance of effective educator involvement was emphasized. Another later study by Giacumo and Savenye [16] emphasized the importance of a strong instructor presence, where students scored lower in discussion board work when both a rubric and instructor response prompts were used than students who had neither but performed better when either a rubric was used, or the instructor provided response prompts. Giacumo and Savenye [16] suggested that the data revealed that more than one type of performance measure might overwhelm students and hinder learning. This does not mean that one type of measurement is always more effective than another. Rather, Giacumo and Savenye [16] identified a rubric as being more effective when the desired outcomes for students are higher levels of critical thinking, a measurable level of participation, and increased student-to-student interactions. On the other hand, Giacumo and Savenye [16] recommended that instructor response prompts be used.

Another tool that is used in conjunction with some online discussion boards is the chat function. Online chats may complement discussion boards in online classrooms. The availability of chat functions varies from one classroom platform to the next. Alexander [17] explained that synchronous online discussions and chats help to simulate the face-to-face classroom, while asynchronous discussions and chats offer flexibility for traditional and hybrid courses. However, Alexander [17] and McAvinia [18] noted that chats and instant messaging are not common in the online classroom. It is clear, however, that both online and in-person classrooms can benefit from these relatively new forms of communication. As online learning platforms continue to evolve, the technology associated with the platforms will likely become more robust and varied.

Student engagement with one another differentiates online education from the old correspondence courses. However, there are still many questions to answer in order to facilitate effective online discussions. Many best practices for online discussion boards exist. A few that are widely recognized include a focus on topic relevance, question prompts, and clear expectations. Aloni *et al.* [8] wrote about the importance of effective question prompts which contribute to increased student engagement. Similarly, Cooper [7] noted that discussions are most effective when the topics are current and the student population views them as relevant.

3.1 SURVEY QUESTIONS

Survey questions for this study were constructed based on the research of Ringler *et al.* [1] that focused on instructor and student interaction in an asynchronous environment. The following questions were utilized to determine student perception regarding their experiences with asynchronous discussion boards.

Question 1: What is your overall opinion of the quality of the discussion board questions for the classes that you have taken online?

Question 2: What are some important components to foster an education or an informative discussion in a classroom discussion or in a work environment?

Question 3: Whether you are in a classroom, online classroom discussion, or in a work environment, what are some of the components that you believe may hinder an educational or informative discussion?

Question 4: Approximately how many online classes have you taken? Not just at our institution but just in total.

Question 5: Thinking about this and discussing this briefly, what other recommendations would you have to improve online discussion board quality and requirements?

4.0 RESULTS AND CONCLUSIONS

Individual students responded with multiple answers to each question. Because of this, the number of responses to each question is higher than nine. Students were encouraged to respond in any way they saw fit. When the data was carefully reviewed, numerous themes emerged. In alphabetical order, the students' primary concerns about discussion board work fit into 13 categories. These categories were coded and organized to illustrate the grand totals for each category and the totals for each of the four questions that allowed for an open-ended answer. Table 1 illustrates the grand totals for all categories.

Table 1. Response categories and total responses.

Category	Code	Total Responses
Assignment	(A)	10
APA References and Citations	(APA)	14
Busy Work/Check Off the Boxes	(BW)	13
Conducive for the Course	(CC)	6
Excessive Time Requirements	(ET)	21
Inconsistent Requirements from Professors	(IR)	7
Too Large of Groups for Quality Discussions	(LG)	5
Lack of Participation from Classmates	(LP)	16
Professor Involvement	(PI)	17
Quality and Relevance	(QR)	9
Repetitive/Leaves No Room for Free Thought or Unique Answers	(REP)	12
Respect Toward One Another	(RES)	10
Too Structured	(TS)	33
Grand Total		**173**

Question 1: What is your overall opinion of the quality of the discussion board questions for the classes that you have taken online?

For Question 1, there were a total of 49 related responses. Responses to this question, as illustrated in Figure 1, resulted in four emerging themes: just another assignment (A); busy work/checking boxes (BW); excessive time requirements (ET), and positive quality and relevance (QR).

Eight responses indicated that the participants believed that discussion board questions included busy work and that students needed to check off the boxes. One student said, "So sometimes I feel like an actual discussion was not happening. It was more of just like checking off the boxes." Five students indicated excessive time requirements for the discussion board questions. One student explained, "The discussion board is a replacement for in-class discussion. So, it could be brief, or it could be ongoing. But some instructors make it where it is just way too much." Five students had positive comments about quality and relevance. One student said, "I feel like, in general, most of the discussion board questions I have had so far, they have been good quality," while another stated, "It is [the discussion board questions] awesome. Especially if you have a good teacher that's active in them." A third student shared, "Overall, I feel that the quality of the questions of the discussion board that I participated in, they are high-quality questions, and they seem relevant to the chapter's topic." Of least importance regarding

this research question, as shown in Figure 1, were the concerns about the size of the groups (LG), the participation rate of classmates (LP), and the level of respect classmates showed toward one another (RES).
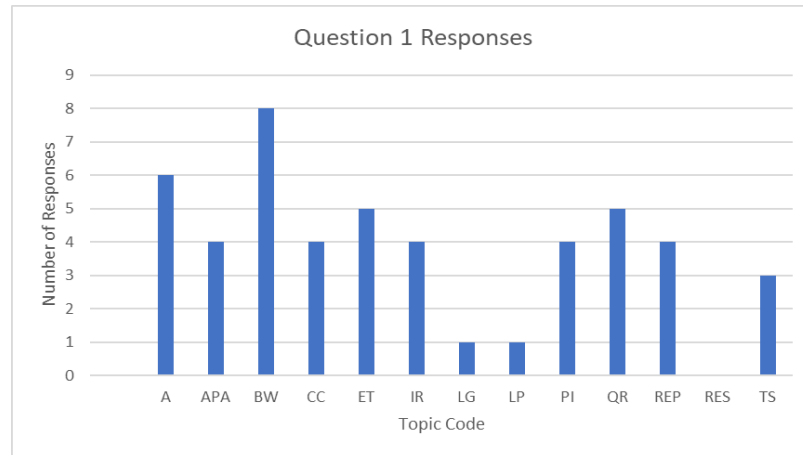

Figure 1. Question 1 response totals.

Question 2: What are some important components to foster an education or an informative discussion in a classroom discussion or in a work environment?
For Question 2, there were a total of 37 related responses. As shown in Figure 2, four themes emerged: too structured (TS), respect toward one another (RES), lack of participation from classmates (LP), and excessive time requirements (ET).
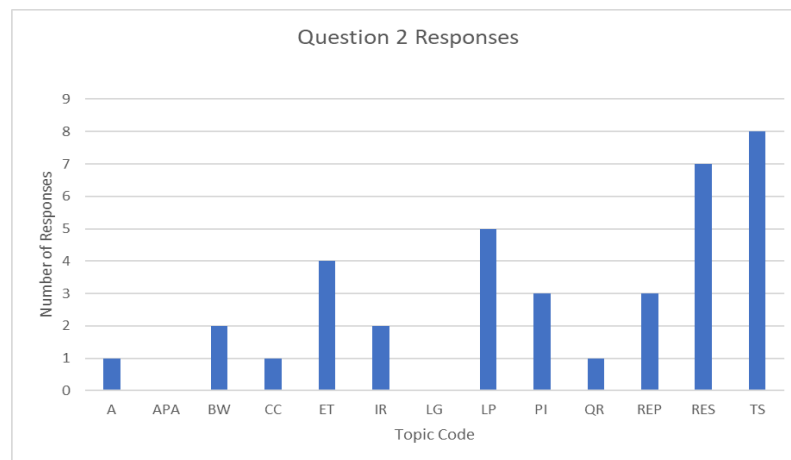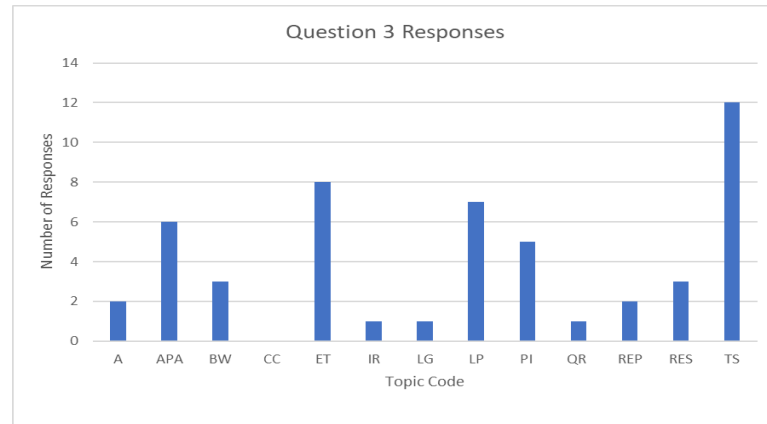

Figure 2. Question 2 response total.

Eight students indicated that too much structure is a hindrance to fostering an education or an informative discussion. One student explained, "So it feels like it is very structured, and this is the question and correct response. And so, there is not a lot of room for debate or to say 'no.' I think this is a better approach to handling that situation" Another student said, "I also think one of the most important things is to have a discussion. You have to have the back and forth. And I feel like that gets lost a lot on the class discussion boards."

Seven students talked about the importance of respect, whether in a classroom discussion or a work environment. One student said, "There would need to be respect, respectful language, staying on topic." Another stated, "…respecting one or others…I think from there the discussion can flow very easily once we have that background that we are going to respect everyone's opinion." Five students expressed concern over the lack of participation from classmates. One student explained the lack of participation and said, "And you can respond to that, but instead, you have a limit of saying it has to be 75 to 100 words. So, nobody wants to respond," while several students talked about a one-way conversation that did not allow many opportunities

for a back-and-forth discussion. Four students stated that there were excessive time requirements. These responses were similar to the concerns regarding time requirements expressed for Question 1.

Question 3: Whether you are in a classroom, online classroom discussion, or in a work environment, what are some of the components that you believe may hinder an educational or informative discussion?

For Question 3, there were a total of 51 related responses. Responses to this question resulted in four emerging themes: too structured (TS), excessive time requirements (ET), lack of participation from classmates (LP), and APA references and citations (APA).

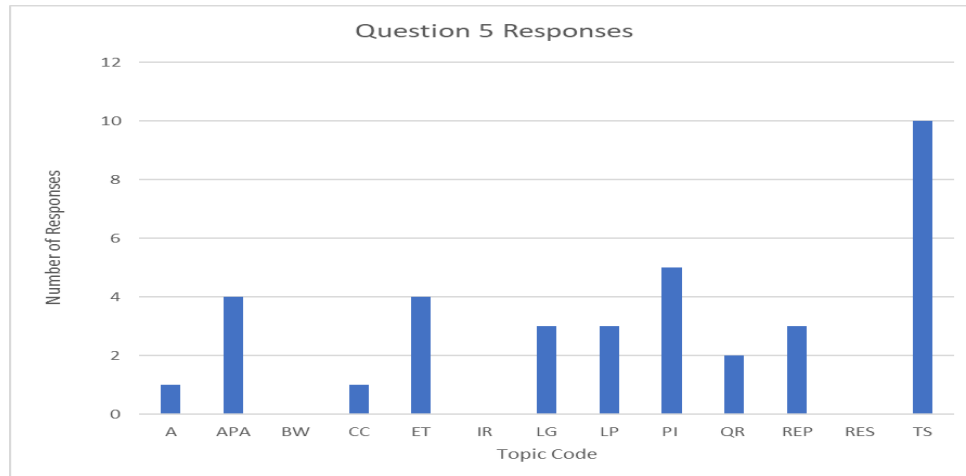**Figure 3. Question 3 response totals.**

Twelve students talked about how too much structure in a classroom, online discussion, or work environment can hinder educational and informative discussions. When explaining what too much structure can do, one student suggested that "…it [too much structure] lacks the ability to go outside the scope of what is being talked about." Related to both structure and time requirements, one student explained that "There is so much material presented in the seminar that there is really not a lot of time for discussion or questions." Eight students stated that excessive time requirements were a hindrance to the educational process, as well as to other informative discussions outside of the classroom. One student suggested that the requirements for posts be changed to help with the time requirements. The student said, "…we can just use a three-sentence response knowing that person is going to reply to us, and now we can respond again, and it might create more of the back and forth versus just kind of trying to look through and see which ones are easiest for us to answer because we got to get this done because what we want to focus on is our assignment." Seven students expressed concern over the lack of participation. One said, "I had a class where the minimum words were 300 with two references. So those kinds of stringent requirements hinder a flowing discussion." Another explained, "I think the biggest thing with the discussion is how overwhelming it is to have so many because each person has to post. And then, you go through and read them, and you decide which ones you want to post to. A lot of people probably pick the easier ones to which they can reply." Six students addressed APA references and citations, which emerged as a requirement in the classroom that they believed hindered an informative discussion. One student said, "The biggest thing that comes to my mind is the focus on the APA format. And to be honest, I always looked at discussion boards as an assignment, not a discussion."

Question 4: Approximately how many online classes have you taken? Not just at our institution but just in total.

All students in the Focus Group had taken at least 12 online courses, with 6 having completed more than 60 credit hours. One student had already completed over 180 credit hours.

Question 5: Thinking about this and discussing this briefly, what other recommendations would you have to improve online discussion board quality and requirements?

For Question 5, there were a total of 36 related responses. Responses to this question resulted in two emerging themes: too structured (TS) and professor involvement (PI), as illustrated in Figure 4.

Figure 4. Question 5 response totals.

Ten students shared recommendations related to comments about the discussion boards being too structured. One student talked about challenges with due dates and her life responsibilities. She said, "I think my biggest hindrance when it comes to discussions is the required time in which I have to post. I am working full-time. I am an army recruiter. I am a mother. I work two hours away from where I live. I have to post Saturday and no later than [Saturday] for my initial post. It puts a lot of additional stress on me." Another student shared a possible solution, which included offering students various discussion questions for each discussion thread. The student explained, "I know this puts more work on you guys as the faculty, but to give for each discussion, give the students more options of topics of not everyone, you know, say for this week, this is what we have read about, and here are your five options to choose from." The student further explained the belief that offering options for answering different questions would result in giving "everyone more knowledge about the whole overall chapters you are learning about if everyone picked different topics. And then you are answering by reading what other people were writing about different parts of what we were learning that week."

Five students had recommendations around professor involvement. The student wrote about the importance of the professor having a strong presence in the classroom. The student said, "The last class I just had everybody posted. Everybody commented. The instructor commented on everybody. She did her own post throughout the week, and if you had more instructors like that. That is the key." Another student continued the theme by suggesting the desire for professors to have a greater presence in the discussions and provide more feedback. The student explained, "So that is my belief is to have more involvement from the faculty. They do not have to give us all the answers, but at least give us some feedback to let us know what we are missing or what our right points are."

4.1 DISCUSSION OF RESULTS

Overall, the participants appeared eager to share their perspectives regarding discussion board requirements in the classroom. Common themes emerged, as previously outlined. Interestingly, having a discussion board task did not emerge as undesirable. Rather, the participants expressed the desire for the format of the discussions to be more conducive to free thought with fewer rigid requirements. In fact, the participants expressed the desire for engagement with one another in discussions in the classroom but viewed many of the graded requirements as a hindrance to deeper and enlightening conversations.

4.2 LIMITATIONS

4.2.1 SAMPLE SIZE

The sample size for the study was relatively small but appropriate for a focus group. According to Then *et al.* [20], when focus groups are used in research, the ideal focus group size recommended in the literature varies from 4 to 14. A study with a larger sample size may yield different results.

4.2.1 DATA COLLECTION METHODS

Although the focus group platform provided an atmosphere that resulted in robust conversation around each of the questions posed, providing the participants with the questions ahead of time would have allowed them to think about their responses before

the meeting. Another possibility would be to use a questionnaire that would allow students to participate when it is most convenient for them and may result in more participant responses. Finally, allotting time for the participants to discuss the questions without the presence of a researcher may have generated some dialog, perspectives, and insights that could have been shared with the researchers in a follow-up meeting, either as a group or in individual interviews.

4.2.2 LIMITED STUDENT EXPERIENCE
The participants were all students at the same school within a single university. A study that included online students from various schools within the university or from various universities may provide more diverse responses.

4.3 RECOMMENDATIONS FOR FUTURE RESEARCH
A larger group of participants from various schools within the university or at various universities could provide more diverse and in-depth perspectives regarding the effectiveness of classroom discussion-board work. A questionnaire with open-ended questions that can be completed over time at the participants' convenience could foster more thorough and carefully considered responses. Providing the participants with the questions ahead of time and allowing them to discuss the questions among themselves may also provide new perspectives and insights. It may also be beneficial to compare and contrast the perspectives of different grade levels and fields of study regarding the role and importance of discussion board requirements. Finally, since the participants in this study did express the desire to engage in classroom discussions, a study would be beneficial to reveal a discussion-board format that fosters in-depth conversations that, although graded, are not bound by rigid parameters that can be perceived as just another assignment or unnecessary busy work.

4.4 RESULTS SUMMARY
Once offered almost exclusively through on-ground brick-and-mortar institutions, higher education has experienced a major shift in the past two decades. This shift to distance education, often referred to as online learning, has resulted in classroom formats that frequently include discussion boards. This study aimed to examine student perceptions of asynchronous discussion boards to develop further best practices for improving participation within the online learning environment by understanding what students perceive to be worthwhile discussion boards and to improve both teaching strategy and instructional design for online courses. Emerging themes included concerns over busy work, excessive time requirements, overly structured discussion boards, and the importance of quality, relevance, professor involvement, and respect. To improve participation, teaching strategy, and instructional design for online courses, each of these themes should be addressed as part of the discussion board design and in the online classroom.

AUTHOR CONTRIBUTIONS
All authors contributed equally to this study.

ORCID
JM – not available
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SN - not available

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