

# Threaded Discussion: The Role It Plays in E-Learning

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## ABSTRACT

This article presents the results of two studies that focus on the role that threaded discussion plays in student learning. Over a period of three and one-half years, researchers conducted a series of surveys of graduate and undergraduate students at a private, nonprofit university in Southwestern Pennsylvania to determine how students viewed the value of threaded discussions in enhancing their ability to learn course material. Students were asked which types of threaded discussions they preferred; whether they found the threaded discussion to be a better tool for learning than a written assignment; and, which learning environment they felt was more conducive to learning, classroom or online. Results from the combined studies revealed some statistically significant differences based on enrollment status and gender. Upon comparing study results, researchers found statistically significant differences with regard to a preference for classroom versus online instruction and the usefulness of threaded discussions to learning.

## KEYWORDS

Critical Thinking, Enhanced Learning, Expectations, Feedback, Interaction, Online Instruction, Perception, Value

## INTRODUCTION

In 2014, Jung and Gilson declared online learning an innovative approach to overcoming the constraints of distance, time, location and differing learning styles made possible by technological evolution. In their report, Allen, Seaman, Poulin, and Straut (2016) characterized the growth of online education as continuing to outpace enrollment at institutions of higher education. While many institutions of higher education in the United States are experiencing a decline in traditional student enrollment, those with online components report increases. The authors found an 11.3% increase in distance learning enrollments at private nonprofit institutions from 2013 to 2014. Leaders at institutions of higher education with online offerings continue to support the proposition that being able to offer distance education is a critical element for success. As to the question of which is more effective for learning, onground or online instruction, the authors report that 71.4% of respondents in 2015 rated learning outcomes in online education as equal to, or better than, learning outcomes from classroom instruction.

Threaded discussion is an instructional tool used to promote critical thinking and reflection (Rizopoulos & McCarthy, 2009). Threaded discussions are asynchronous conversations among participants – students and instructors - in a web-based forum. Jung and Gilson (2014) maintain that asynchronous communication is the dominant form of educational computer-mediated communication

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today. Threaded discussion can create online dialogic communities, communities which Rizopoulos and McCarthy state “have become a ubiquitous tool that transforms student learning and course delivery” (p. 373).

The argument is made that a key element in successful online instruction is the effective use of threaded discussions. They are the “beating heart of nearly every online course” (Sull, 2014, p. 11) and standard features in distance education (Maurino, Federman, & Greenwald, 2007). Edelstein and Edwards (2002) suggested that a critical element of any successful online course is the incorporation of a means to facilitate ongoing student interaction. It might be said that the threaded discussion is the means, if not the lynchpin, for facilitating student-to-student and instructor-to-student interaction.

Kleinman (2005) proposed that to maximize active learning and interaction in online courses, instructors should look to improving instructional design. Kleinman maintained that a satisfied learning community is the result of an online environment that nurtures engaged learning and provides the necessary support to help students understand course expectations. Swan (2001) determined that interactivity was key to effective online course design.

It goes without saying that the development of critical thinking skills is an important outcome for any institution of higher education. For online learners, the threaded discussion is considered to be a key tool in enabling e-learners to develop such skills. Using Newman, Webb, and Cochrane’s (1995) content analysis framework, Tan and Ng (2014) assessed how well postgraduate students demonstrated critical thinking skills in threaded discussions. They found that while participants could not critically evaluate their own or others’ postings, their personal experience and knowledge had a bearing on critical-thinking performance.

Clarke and Kinne (2012), noting that the use of threaded discussion in creating online learning communities has been validated, also point out that there have been studies critically examining the practice. For example, Dollisso and Koundinya (2011) determined that the use of a two-stage discussion model could help keep threaded discussions on track while maintaining the interactive features of the discussion. Clarke and Kinne wanted to understand the effect that altering the discussion format would have on students’ learning experience. In their study, the authors used discussion boards with one group and blogs with another for group discussion. They found that the learning community built from the group discussion in the discussion board was both more academic and more collaborative than that built using a blog.

However, as Lee, Yang, and Rim (2014) observed, not all threaded discussions are created equal. They found that how a threaded discussion was structured outweighed time constraints, the participant profile or who initiated the thread.

In this study, researchers looked at format, as well as students’ perceptions of the value and usefulness of threaded discussions to learning in order to determine the role that threaded discussion plays in enhancing student learning in the online environment. The study combines the results of surveys conducted over a three and one-half year period.

## RESEARCH QUESTIONS

1. From the student’s perspective, is one format preferable to another in threaded discussions?
2. From the student’s perspective, do threaded discussions add to or enhance learning?
3. From the student’s perspective, do threaded discussions assess learning better than written assignments?
4. From the student’s perspective, are threaded discussions useful for learning course material?
5. From the student’s perspective, which learning environment, online or face-to-face, is preferable?

## METHODOLOGY

Researchers developed a fourteen-question survey instrument modeled on one designed by Shelley and Best (2014) to determine student perceptions of the value of threaded discussions in fully online and in blended learning courses. The survey was first administered to graduate and undergraduate students in business and education courses in 2013-2014. Surveys were administered again in 2015-2017 to students in graduate and undergraduate business and education courses. The survey had been modified for the second study to include two additional questions on the use of rubrics in scoring threaded discussions. The additional questions were deleted when the results from both studies were combined for analysis in SPSS.

The first four questions were demographic in nature and included gender, enrollment status, academic level, and experience with online courses. Seven questions focused on the respondents' view of selected elements of threaded discussions, including value and usefulness, format, assessment methods and weighting, and time commitment. One question asked for the student's preference for online or face-to-face instruction. Another asked if the student "enjoyed" threaded discussions. There were two open-ended questions asking for additional comments. These last two were optional. Students were given extra credit to complete the survey. The survey instrument was developed in Question Pro, the web-based survey software used at the University. Results were transferred into SPSS for analysis.

Independent samples T-tests were run on each of the five research questions comparing results from each of the earlier studies. Independent Samples T-tests were also run on the combined sample for each of the five research questions based on enrollment status and gender.

### Sample and Participant Selection

Students in the undergraduate and graduate business law classes, graduate students in the educational technology and education research courses, and graduate students in the MS in Human Resource Management program over the three year and one-half period were asked to participate.

In the first study, 440 students started the survey, of those, 402 completed it, for a completion rate of 91.36%. Undergraduate students made up 65.24% of the sample. Females represented 77.30% of the respondents. Full-time students made up 77.36% of the sample. More than 36% of the students had previously taken between one and three online courses, followed by 28.24% for whom this was their first online course. Approximately 21% had taken between four and seven online courses. Respondents who had taken between eight and ten online courses represented 6.35% of the sample. Those who reported having taken more than ten online courses made up 7.76% of the sample.

In the second study, 524 students began the survey. Five hundred twelve completed it for a response rate of 97.71%. Graduate students composed 53.33% of the sample. The response rate between females and males was more evenly split in the second study (50.79% - 49.21%). Full-time students represented 63.73% of the sample. More than 34% of the students had previously taken between one and three online courses, followed by 22.40% who had taken between four and seven online courses. There were 19.45% for whom this was their first online course. Approximately 12% had taken between eight and ten online courses. Those who reported having taken more than ten online courses made up 11.59% of the sample.

Together, 964 students began the survey, of these, 914 completed it for a completion rate of 94.81%. Undergraduate students made up 55% of the sample. Females represented 62.8% of the respondents. Full-time students made up 69.8% of the sample. Approximately 35% of the students had previously taken between one and three online courses, followed by 23.44% who said that they had not taken any online courses prior to the current one. Almost 22% had taken between four and seven online courses. Almost 10% of the respondents had taken between eight and ten online courses. The same percentage reported having taken more than ten online courses.

In both studies, "online" was defined to include courses with an online component as well as courses delivered in the fully online mode.

## RESULTS

### Research Question 1

The first research question asked students whether they preferred one question format over another in a threaded discussion to learn course material. When survey results from both studies were combined, 27.25% said that they preferred questions asking the student for their opinions on an instructor's example or scenario, followed by responding to controversial issues (23.87%).

There were differences between the two studies on the first research question. In each of the surveys in both studies, students were asked to choose which of the four formats for threaded discussions they preferred. These were "specific answer," "opinion on an example or scenario presented," "response to controversial issues," or "role-playing scenarios." Students could also answer that they liked all "about the same" or did not like any of the formats for threaded discussions.

In the 2013-2014 study, 26.36% of the students said they liked all "about the same." Approximately a fifth of the participants in the first study chose "specific answer" (20.93%), "opinion on an example or scenario presented" (20.16%), or "response to controversial issues" (19.38%). Slightly more than 10% chose "role-playing scenarios."

In the 2015-2017 study, 29.53% of the students said they preferred discussion formats that presented a scenario or an example on which they could express an opinion. Approximately one quarter of the students preferred responding to controversial issues (25.31%). More than 20% of the respondents in the second study said they liked all "about the same" (20.35%). In contrast to the respondents in the first study, only 12.16% chose "specific answer" as their preferred format for threaded discussions. Role-playing scenarios was identified by 9.93% of the participants as a preferred format for learning course material imbedded in threaded discussions. In both studies, approximately 3% elected "I really don't like any of these formats."

Independent Samples T-tests were run on Research Question 1. There were no statistically significant differences between the two studies, 2013-2014 and 2015-2017, on the preference for format of threaded discussions. There were no statistically significant differences on the preference for format of threaded discussions based on enrollment status or gender. The differences between the two studies with regard to the first research question are represented in Table 1.

### Research Question 2

The second research question asked if students found threaded discussions added to or enhanced learning. When survey results from both studies were combined, 40.11% said that they found threaded discussions to be "somewhat helpful" to learning course material, followed by 28.24% who said that threaded discussions "helped a little." Approximately 19% found threaded discussions to be "very useful" for learning course material.

Again, there were differences between the two studies with regard to Research Question 2. In the 2013-2014 study, 42.19% of the students rated threaded discussions as "somewhat helpful," followed by 23.44% who rated threaded discussions as "very useful." Respondents who said threaded discussions "helped a little" represented 19.53% of the sample, followed by 10.16% who responded, "very little," and 4.69% who had "no opinion."

In the 2015-2017 study, 39.45% of the students rated threaded discussions as "somewhat helpful," followed by 31.02% who said threaded discussions "helped a little." Those who rated threaded discussions as "very useful" represented 17.87%, followed by 9.68% of the sample who responded, "very little," and 1.99% who had "no opinion."

Independent Samples T-tests were run on Research Question 2. There were no statistically significant differences between the two studies, 2013-2014 and 2015-2017, on the perceived value of threaded discussions to enhanced learning. There were statistically significant differences on the perceived value of threaded discussions to enhanced learning based on gender at the .05 level (.017, equal variances not assumed). There were no statistically significant differences on the perceived

Table 1. Question format preference

Format	2013-2014 Study Count/Percent	2015-2017 Study Count/Percent	Combined Results Count/Percent
Specific Answer	27 / 20.93%	49 / 12.16%	76 / 14.28%
Your opinion on an instructor's example or scenario	26 / 20.16%	119 / 29.53%	145 / 27.25%
Your response to controversial issues	25 / 19.38%	102 / 25.31%	127 / 23.87%
Role-playing scenario, puts you in a decision making position	13 / 10.08%	40 / 9.93%	53 / 9.96%
I like all of them about the same	34 / 26.36%	82 / 20.35%	116 / 21.80%
I really don't like any of these formats	4 / 3.10%	11 / 2.73%	15 / 2.81%

value of threaded discussions to enhanced learning based on enrollment status. Table 2 illustrates the differences between the two studies with regard to students' perceptions of the value of threaded discussions to their learning course material.

### Research Question 3

The third research question asked whether students preferred threaded discussions or written assignments as the means to assess learning. When survey results from both studies were combined, 41.50% said that they preferred the threaded discussion. Those who preferred the written assignment represented 30.56% of the sample. Almost 22% rated the choices equally.

Those who had no opinion represented 3.96% of the sample followed by 2.07% who did not like either form of assessment.

In the 2013-2014 study, 40.94% preferred the threaded discussion as a means of assessment, 34.65% chose the written assignment as the preferred method of assessment of learning. Those who thought both methods were "about the same" represented 22.05% of the sample. Those who responded that they did not like either form of assessment represented 2.36% of the sample. There were no respondents who selected "no opinion."

In the 2015-2017 study, 41.69% chose threaded discussions as the preferred method of assessment, while 29.28% selected the written assignment. Those who thought both methods of assessment were "about the same" represented 21.84% of the sample. More than five percent had no opinion, while 1.98% said they did not like either.

Table 2. Threaded discussion value

Value	2013-2014 Study Count/Percent	2015-2017 Study Count/Percent	Combined Results Count/Percent
Very little	13 / 10.16%	39 / 9.68%	52 / 9.79%
Somewhat, they help a little	25 / 19.53%	125 / 31.02%	150 / 28.24%
No opinion	6 / 4.68%	8 / 1.98%	14 / 2.63%
To some degree, somewhat helpful	54 / 42.19%	159 / 39.45%	213 / 40.11%
Very useful	30 / 23.44%	72 / 17.86%	102 / 19.21%

Independent Samples T-tests were run on Research Question 3. There were no statistically significant differences between the two studies, 2013-2014 and 2015-2017, on the preferred method of assessment, threaded discussion or written assignment. There were no statistically significant differences on the preferred method of assessment, threaded discussion or written assignment based on enrollment status or gender. Student attitudes toward the preferred method of learning assessment, threaded discussions or written assignments, are represented in Table 3.

#### Research Question 4

The fourth research question asked students if they thought that threaded discussions were useful for learning course material. When survey results from both studies were combined, 42.61% said threaded discussions were “somewhat useful” followed by 32% who said that threaded discussions were “an important part of the course.” Almost 11% said threaded discussions were “critical and important learning,” followed by 9% who felt that they were a “waste of time” and 5.49% who had no opinion.

In the 2013-2014 study, 39.37% found threaded discussions to be important, followed by 25.98% who said they were “somewhat useful.” Those who thought that threaded discussions were “critical and important learning” represented 17.32% of the sample. Almost 12% felt them to be a waste of time. Those with “no opinion” represented 5.51% of the sample.

Independent Samples T-tests were run on Research Question 4. There were statistically significant differences between the two studies, 2013- 2014 and 2015-2017, on the usefulness of threaded discussions to learning course material at the .01 level (.002, equal variances not assumed). There were no statistically significant differences on the usefulness of threaded discussions to learning course material based on enrollment status or gender. Table 4 reflects student responses to Research Question 4 on the usefulness of threaded discussions to learning.

#### Research Question 5

The fifth research question asked students which learning environment, online or face-to-face, they preferred for learning course material. When survey results from both studies were combined, 38.21% chose face-to-face over online instruction (29.84%) for learning course material. Almost 30% said “either one is fine.” Those with no opinion represented 2.28%.

Table 3. Preferred learning assessment

Assessment	2013-2014 Study Count/Percent	2015-2017 Study Count/Percent	Combined Results Count/Percent
Do not like either form of assessment	3 / 2.36%	8 / 1.98%	11/ 2.07%
They are about the same	28 / 22.04%	88 / 21.84%	116 / 21.88%
No opinion	0 / %	21/ 5.21%	21/ 3.96%
I prefer the Written Assignment	44 / 34.64%	118/ 29.28%	162 / 30.56%
I prefer the Threaded discussion	52 / 40.94%	168/ 41.69%	220 / 41.50%

Table 4. Threaded discussion usefulness

Usefulness	2013-2014 Study Count/Percent	2015-2017 Study Count/Percent	Combined Results Count/Percent
A waste of time	15/ 11.81%	33/ 8.23%	48/ 9.0%
Somewhat useful	33 / 25.98%	192 / 47.89%	225 / 42.61%
No opinion	7 / 5.51%	22/ 5.49%	29/ 5.49%
Usually an important part of the course	50 / 39.37%	119/ 29.67%	169/ 32.0%
A critical & important learning activity in the course	22 / 17.32%	35/ 8.73%	57 / 10.79%

In the 2013-2014 study, 53.28% preferred face-to-face instruction for learning course material as opposed to 27.05% who preferred online instruction. Almost 19% said “either one is fine.” Those with no opinion represented 0.82% of the sample.

In the 2015-2017 study, 33.66% preferred face-to-face instruction for learning course material as opposed to 30.69% who preferred online instruction. Those who responded “either one is fine” represented 32.92% of the sample. Those with no opinion represented 2.72% of the sample.

Independent Samples T-tests were run on Research Question 5. There were statistically significant differences between the two studies, 2013-2014 and 2015-2017, on students' preference for face-to-face versus online instruction for learning course material at the .05 level (.024, equal variances assumed). There were statistically significant differences on students' preference for face-to-face versus online instruction for learning course material based on enrollment status at the .01 level (.000, equal variances not assumed). There were no statistically significant differences on students' preference for face-to-face versus online instruction for learning course material based on gender. Student preference for the online versus face-to-face learning environment is reported in Table 5.

## CONCLUSION

Over several years, with the use of student surveys on different aspects of online instruction and student learning, beginning with a comparison of student learning in the online environment with learning in the traditional classroom setting, researchers have attempted to broaden the scope of the investigation into the role that threaded discussion plays in e-learning. Several themes emerged, among them the importance of student-to-student and student-to-instructor interaction as critical to student satisfaction with their e-learning experience (Cole, Shelley, & Swartz, 2014), and to some degree, to student understanding of and adherence to the precepts of academic integrity in the online environment (Cole, Shelley, & Swartz, 2013).

As several prior studies have demonstrated, the threaded discussion has proven to be an effective instructional tool for facilitating participant interaction in online courses (Joyner, 2012, Andresen, 2009, Rizopoulos & McCarthy, 2009, Mandernach, Dailey-Hebert, & Donnelly-Sallee, 2007, Edelstein and Edwards, 2002). Others consider the threaded discussion as a means to influence critical thinking (Arend, 2009; Meyer, 2003); and, as a way to facilitate the assessment of learning (Vonderwell, Liang, & Alderman, 2007). Loncar, Barrett, & Liu (2014) noted that with technological advances have come significant changes in how course material is developed and delivered. Students are expected to interact with peers as well as with the course material.

Andresen studied the impact of asynchronous discussion on student learning, comparing it with student learning in the classroom environment. He found, given certain limitations, the threaded discussion - asynchronous discussion formats - could provide "the critical dimensions of learning" found in the more traditional classroom setting. Focusing on enhancing student interaction, but acknowledging the challenges in presenting course material in a way that promoted critical thinking, Joyner found that inserting images and examples into asynchronous discussions enhanced interaction and resulted in a level of critical thinking.

This study looked at students' attitudes toward four aspects of threaded discussion: preferred discussion format, perception of their value to learning, perception of their effectiveness as a learning assessment method, and their usefulness as an instructional tool. Researchers also asked students which instructional environment was more conducive to learning. Results from this study were consistent with the authors' earlier studies on preferred discussion format (Cole, Shelley & Swartz, 2017), student perceptions of the value and usefulness of threaded discussions for learning, and preferred assessment tool (Cole, Shelly, & Swartz, 2016), and learning environment (Shelley, Swartz, & Cole, 2008).

Findings point to choosing scenarios, case studies and examples, followed by presenting controversial issues as best practice for formatting threaded discussions. Perhaps with a stronger emphasis on more challenging interactive discussions, students will find the threaded discussion to be "very useful" for learning course material as opposed to only "somewhat helpful," as this study found. In both studies, students preferred the threaded discussion over a written assignment as a means of assessment. Student preference for online instruction over face-to-face is growing, as this study illustrates. The change may be due to students gaining familiarity with online instruction. Its popularity might also be due to the evolution of online pedagogy.



Table 5. Learning environment

Environment	2013-2014 Study Count/Percent	2015-2017 Study Count/Percent	Combined Results Count/Percent
Traditional face-to-face	65/ 53.28%	136/ 33.66%	201/ 38.21%
Either one is fine w/me	23 / 18.85%	133 / 32.92%	156 / 29.65%
No opinion	1 / .82%	11/ 2.72%	12/ 2.28%
I would prefer the Fully Online course	33 / 27.05%	124/ 30.69%	157/ 29.84%

An in depth examination and investigation should be conducted of instructors' perceptions of the value of threaded discussions, particularly with regard to the development of critical thinking skills. In their case study involving 36 instructors teaching online, Maurino, Federman, and Greenwald (2007) examined the purposes, goals, and objectives of threaded discussions set by the instructors. They found that instructors used threaded discussion to develop both cognitive and social skills. The hope was that the threaded discussions would enhance e-learning, open students' minds to different ideas and perspectives and facilitate more in-depth learning leading to higher-level critical thinking skills. The finding was that older, more experienced students could achieve "deep learning." Instructors stated that they did not observe higher-level critical thinking skills in younger students.

Belcher, Hall, Kelley, and Pressey (2015) examined the role that faculty behaviors play in creating threaded discussions that facilitate the development of critical thinking skills. Their study was inconclusive with regard to the correlation between faculty behaviors and students' scores on the tool used to assess peer interaction (IAM). Interestingly, they noted that when the instructor was less engaged in the discussion, students seemed to increase their cognitive engagement with other students.

While researchers in this study did not attempt to determine a relationship between instructors' behaviors and student perceptions of the value of threaded discussions as a tool for learning course material, many of the responses to the open-ended questions asking for students' thoughts on their experience with threaded discussions did touch on the issue. The authors have italicized key phrases in the following examples of verbatim student responses:

Several students commented on the importance of timely feedback.

- I appreciate when instructors take the time read and make a comment on the discussion grade (2015-2017 Study).
- Feedback is important with threaded discussions. If it is being graded, the instructor needs to provide feedback and direction to facilitate improvement (2015-2017 Study).
- Timely feedback from the professor is greatly helpful and appreciated (2015-2017 Study).
- I like when professors provide feedback on a timely manner. Some courses I have not received feedback or the feedback was given several weeks later. It is helpful for students to get immediate feedback in order to ensure students are on the right track and meeting expectations (2015-2017 Study).
- The best online discussions that I have experienced have required the professor to give feedback fairly soon after the thread is closed. I put a great deal of time into my responses and threads, so it is nice to be rewarded differently than those who "seemingly" do not. Gradation is key.

For some of the best thread discussions and a framework for the future, I would suggest to look at Professor X's style and Professor Y's style. Both give immediate feedback and also give professional opinions and real outcomes of the topics (2015-2017 Study).

- My only concern is that the threaded discussions are not looked at by the professor. There are around 30 original posts and then any number of replies, so it might take the professor a long time and the professor might be checking for completion instead of content (2015-2017 Study).
- The main reason I enjoyed Threaded Discussions was because of the feedback I received from both the instructor and the students in my class. This provided me with more insight for the topics we were discussing (2015-2017 Study).
- Most professors do not share an answer to the threaded discussions, particularly the opinion or role play ones. Even though many answers could be correct, it would still be helpful to hear what the best solution is so I can determine if my answer was close (2015-2017 Study).
- I think threaded discussions are a useful tool whenever the students are given feedback, when there is nothing said or no critique given then I think they can be a waste of time (2015-2017 Study).
- It would be helpful if the overall "right" answer is posted in the threaded discussions (2015-2017 Study).
- I prefer threaded discussions where you get feedback from the professor. This allows a better understanding of the content and points that might have been missed by myself or other students (2015-2017 Study).
- I took an online international business course that I thought made use of threaded discussions very well because both students and instructors responded many times throughout the week on the discussion and valuable feedback was given (2015-2017 Study).
- Threaded discussions are helpful because one receives feedback quickly from their peers. While this isn't always at the level of an instructor, it does give more feedback from more sources and helps to offer possible different perspectives about the same issues (2015-2017 Study).

Some students focused on the instructor's approach to the course.

- I find online courses, hybrid or fully, to be a huge disconnect from the instructor, my peers, and the content. It feels like I am simply paying thousands of dollars to be told which book the questions come from. I need face to face interaction and classroom structure to learn at my fullest capability. A thoughtful and helpful instructor is always a good thing as well (2013-2014 Study).
- My first fully online course was during the Summer 2013 semester and I absolutely enjoyed every aspect of it. I feel that having daily/weekly threaded posts really engages you in the learning and promotes critical thinking on behalf of the student. It was different than the typical "lecture - exam" style that many use in face-to-face instruction and I felt more of a connection with my professor and I learned more by participating in the online discussions of the material. I would recommend to any student to at least try an online course at least once. I also enjoy professors who use the hybrid format as well (2013-2014 Study).
- Online courses can be intimidating at first and vary with each professor. Since I have had the same professor for the majority of my online courses it makes sense that I have developed a comfort level. I like online courses for the ease of restriction but face to face offers a better comprehension (at least in Grad classes...for a lecture class I would certainly prefer online with threaded discussions for the class interaction and insight) (2013-2014 Study).
- I enjoy when the instructor participates in the threaded discussions as well (2015-2017 Study).

Others noted that the instructor needed to be clear about expectations in threaded discussions.

- I think having a clear and [sic] concise rubric for discussion posts are critical. All of my classes thus far have had one. This makes achieving expectations much simpler (2015-2017 Study).
- In my experience, threaded discussions work best when the professor lays out the specific guidelines of what he/she expects us to do for each threaded discussion. For example, they should specifically indicate how many times we should post in the discussion, whether we need to use cited sources, or how long each post should be in the discussion. The professor should also have a good understanding of how threaded discussions work. Otherwise, it can become very confusing (2013-2014 Study).
- In my experience, when an instructor puts too many requirements in the rubric (such as minimum word count), it takes away from the flow of the threaded discussion. I find the best discussions are those in which the instructor encourages students to write as though they were talking with other students in a classroom setting (2015-2017 Study).
- I have found that professors vary significantly in their formatting and expectations for online discussions. For some courses, these discussions are extremely useful and relevant where in other courses they do not add to understanding of the material or ignite meaningful discussion (2015-2017 Study).
- When starting out the professor needs to let the class know the preferred method of posting to the thread. i.e. To create a new thread or utilize replies to the posted thread question. As a new student to threaded discussions this could be confusing as the classes I have taken have all had a different requirement (2015-2017 Study).

Some commented on the instructor's use of and participation in threaded discussions.

- Some of my online courses have had multiple discussions each week with replies to more than one student. In one of my online courses there are three discussions each week with reply to multiply [sic] students, with very little guidance from the professor. This has left a bad impression about threaded discussions for me. One threaded discussion every other week usually seems to be the best (2015-2017 Study).
- I do not like answering questions that are setup [sic] like an essay prompt. Once again, an online discussion is designed to supplement in-class discussions. However, some professors use it as an opportunity to assign an essay assignment each week, then expect students to respond via essay to others' posts. I believe there is certain type of informality that should follow online discussions; some educators are not even in the same ballpark with this train of thought (2015-2017 Study).
- One instructor required that you include a question to help progress the dialogue (2015-2017 Study).
- the only downside of threaded discussions is that professors typically want those closely monitored and updated which is difficult for me during the work week (2015-2017 Study).
- I think threaded discussions are useful, but prefer face to face discussions or more hands-on discussion moderated by the professor (2015-2017 Study).
- It really depends on the professor and what kind of questions or prompts he/she is providing for the discussions. It also depends on the content being discussed - some things are more able to actually discuss whereas some things are just straight forward and there isn't much discussion in it. It also is largely based on the work ethic of the people enrolled (2015-2017 Study).
- Depends on the professor and my knowledge of their courses (2015-2017 Study).
- I believe that the relevant use of threaded discussions really depends on the quality of the prompts the professors assign and the quality of the discussion that ensues. Therefore, it is up to the professors to develop good prompts and up to the students to help each other out by contributing meaningful conversation (2015-2017 Study).
- As a graduate student who only takes fully online courses, I think the threaded discussions are crucial! They provide each student a chance to answer the question then respond to other students.

It's a great tool to use for the online programs. I also enjoy the professors that give us time to complete our initial post and then additional time to complete our responses to other students! (2015-2017 Study).

- I appreciate the professor participating in the threaded discussion, most of the courses I've taken they do not do this. Or the professor is too involved, being the first to answer and takes away the students [sic] opportunity to say it first (2015-2017 Study).
- Instructors need to guide students from telling each other "good job." In my experience, too many students avoid challenging the ideas of their classmates and simply agree to get their points for participation. Even when I bait others into my thread, I usually get very little to work with (2015-2017 Study).
- Overall I think the quality of the threaded discussion is up to what the professor makes of it. Some professors put time into creating the situations for the discussions, which in turn make the discussion more meaningful and generate better discussion (2015-2017 Study).
- I think professors need to consider the amount of time it takes students to complete threaded discussions and respond to other students. I value the learning and reading that takes place when I am looking for other resources to contribute to the learning. However, it is hard to complete threaded discussions, take on line quizzes, complete research papers. Its hard to do all of those well in an 8 week course and work full time (2015-2017 Study).
- I've only been involved in one threaded discussion thus far. I think it would be interesting to see the Professor get involved with some of the discussions. It may help guide the [sic] into a more constructive learning experience (2015-2017 Study).
- Most of the time, it seems like professors use threaded discussions as way to spark controversy in the class, however it is hard to do that effectively when everyone is taking the course online. Most of us students see them as an easy way to get points and boost our grades (2015-2017 Study).

Future studies of students' perceptions of the value of online education might focus on instructor's role in the interactive features of the course, specifically, the threaded discussion to identify best practices. In place of optional open-ended questions asking for comments, researchers might develop a set of specific answer questions directly related to the instructor's involvement and participation in the course.

This study points to the continuing need for well-designed and executed threaded discussions that engage students, as well as instructors in the learning process.

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