More Than Words: Investigating the Format of Asynchronous Discussions as Threaded Discussions or Blogs

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Abstract

As more courses in teacher education are offered online, it is imperative that we thoughtfully consider how we structure learning activities. This study turned a critical gaze on a common element of online courses—asynchronous discussion. The authors compared two models of discursive interaction—discussion boards versus blogs— to better understand if the way discussions were structured affected the virtual learning community. Through this comparative mixed-method research and layered analysis, the authors discovered that the format of the discussions altered the patterns of discourse, affected student engagement, and contributed differently to the development of learning communities. Having this awareness can enable us to create more effective online learning experiences for students. (Keywords: online teaching, asynchronous discussion, discussion boards, blogs, learning communities)

here is no denying that online education is growing rapidly in higher education. The report "Learning on Demand: Online Education in the U.S." (Allen & Seaman, 2008) documented a 17% growth rate for online enrollments, which far exceeds the 1.2% growth of the overall higher education student population. As teacher education moves into this rapidly growing online world, we face important considerations that are unique to our field—most notably our responsibility to not just deliver content, but also model effective pedagogy, through which content should be presented. It is not sufficient for teacher educators to use

a "do as we say, not as we do" approach to their choices of instructional strategies. Teacher educators must be cognizant of the reality that the instructional strategies they implement are serving as models of instruction for the teacher candidates in their courses.

This is especially challenging when teacher education courses are delivered in an online format. Teacher education courses have the extra burden of teaching teachers how to teach, which, for teacher educators, means carefully considering how to adapt face-to-face pedagogy into successful online learning experiences. Saltmarsh and Sunderland-Smith (2010) found that many teacher educators struggle with this exact issue, as "for many teacher educators, the practice of teaching represents much more than content. As a consequence, changes to modes of delivery, hence to pedagogic practices and relationships, pose challenges not only to the 'how' of teaching" (p. 15). Struggling with how to teach teachers online is especially important as more and more teachers turn to online degree programs. We need to carefully consider pedagogical practices as we move forward in this rapidly changing environment.

As we, the authors of this study, carefully considered how to structure the learning experiences in our online courses, we realized that we first needed to reflect on the building blocks that provide the foundation for learning. As teacher educators, we adhere to social learning theory, which asserts that learning is mediated within a social context. Learning is a collaborative experience that does not take place in isolation but rather through interactions with others (Vygotsky, 1978). From this social learning perspective, knowledge is

constructed while individuals are engaging in activities, receiving feedback, and participating in other forms of human interaction in public social contexts (Henning, 2004). The notion of creating these collective learning experiences that are mediated through verbal interactions is what drew us to the use of asynchronous discussions as a vehicle for creating online learning communities.

The importance of building a sense of community has been researched for online learning. Palloff and Pratt (1999) stressed the importance of building and sustaining strong learning communities in virtual classrooms. Studies have connected students' experiences in learning communities with positive learning outcomes (Sadera, Robertson, Song, & Midon, 2009), satisfaction with the learning experience (Rovai, Wighting, & Lucking, 2004), and enhanced learning achievement (LaPadula, 2003). Holding class discussions is a common way to engage in learning communities (Cazden, 1988), and in online learning, these discussions have become a common feature for structuring learning experiences (King, 2002). Many researchers who work in online environments agree that asynchronous discussions are places where students learn from each other (Carr-Chellman & Duchastell, 2000), provide accessibility to each other's thinking (Peterson & Slotta, 2009), and enable students to participate even more than in live classroom discussions (Hirumi & Bermudez, 1996; Paloff & Pratt, 1999).

Although the validation of using asynchronous discussions in creating an online learning community is accepted, there have been some critical examinations of this practice. For example, Vonderwell and Zachariah (2005)

Table 1. Comparison of Courses

	Threaded Discussions	Blogs EDG 615 Curriculum & Instruction		
Course	EDG 624 Assessment & Evaluation			
Number of Sections	Two Sections: Fall and Spring 2009	Two Sections: Fall and Spring 2009		
Student Characteristics	Teacher as Leader Online Program	Teacher as Leader Online Program		
	Students reported taking four or more online courses in the past	Students reported taking four or more online courses in the past		
	K-12 teachers and nurse educators	K-12 teachers		
Total Students	38	42		
Participants	13	14		
Discussions	Eight forums each with three threads, each consisting of a discussion question posed by the instructor. Students were expected to respond to each of the three threads and then react to the responses of at least three peers.	Six blog tasks, each with a guiding question posted by the instructor. Students were expected to respond to the prompt and at least two classmates' blog posts.		
Evaluation	The threaded discussions were evaluated using a rubric and assigned points.	The blogs were evaluated using a rubric and assigned points.		
Purpose of Discussions	The instructor viewed the role of the discussion board in the course as similar to the role of class discussion in a face-to-face course: to assist students in co-constructing meaning from the course content.	The instructor viewed the role of the discussion board in the course as similar to the role of class discussion in a face-to-face course: to assist students in co-constructing meaning from the course content.		
Instructor	Female	Female		
	At time of study, 1–2 years online teaching	First year of online teaching		
	Average course evaluation around 4.5 on a 5.0 scale	Average course evaluation around 4.5 on a 5.0 scale		

analyzed asynchronous discussions and found different types of participation and patterns of participation. Peterson and Slotta (2009) studied the quality of discussions in their online courses and found that, although all students contributed at least one discussion board prompt, there was a wide range in the number of responses that students received from peers. Researchers have also looked at interaction patterns, quality of responses, and tone of responses, but did so using traditional online threaded discussions. For this study, we wanted to understand what would happen if we changed the format of these discussions: One class used discussion boards for group discussion and another used blogs for the same purpose. Specifically, we wanted to better understand if the structure of these discussions affected the type of learning community our students experienced. We believe that it is imperative that we cast a critical gaze on how we structure online discussions, as we want online educators to better understand how their pedagogical choices can significantly influence students' learning.

Background of the Study

The context of this study occurred in a fully online Teacher as Leader master's program at a medium-sized university in the U.S. Midwest (see Table 1). The two courses that we studied were taught through the university's Blackboard system. The second author taught the first course, Assessment & Evaluation (EDG 624). This course used Blackboard's threaded discussion feature to conduct asynchronous discussions. For all but the introductory discussion forum, the instructor placed students into smaller discussion groups of six to eight students, based on professional role. There were eight discussion forums in the course. In each discussion forum, the instructor posted three questions, each as a separate thread. Students were expected to respond to each of the three threads and then react to the responses of a minimum of three peers. The instructor graded discussions using a rubric that assigned points according to the level of engagement. For this study, we analyzed two sections of this course where 14 students gave permission to access their past course discussions.

The first author taught the second course Curriculum & Instruction (EDG 615). Although this class was also taught through the university's Blackboard system, this course did not use the threaded discussion feature to conduct asynchronous discussions but instead had students create blogs through Blogger and engage in conversations through these blogs. Each module in the course had a task for the students to complete. The students were to blog weekly in reaction to a prompt. Then they were required to read and comment on each other's blogs. At the beginning of the semester, they could read and respond to any classmate's blog, but in the middle of the semester they were arranged in groups and asked to respond to their group members' blogs. Similar to EDU 624, this course assigned eight weekly blogs. The instructor graded these blog discussions with a similar rubric that defined how they were to be evaluated. We analyzed two sections of EDG 615, from which 13 students gave permission to access their past course discussions. We acquired Institutional Review Board

(IRB) approval for this study, and all of the accessed discussions occurred after the course was over and grades were given.

Sources of Data

This study has two main sources of data. First, we sent all participants an online survey using Survey Monkey. There were 13 Likert rating scale questions about topics such as communicating with classmates, learning content, feeling part of a learning community, feeling that opinions were valued, having one's posts listened to, and accurately communicating thoughts. In addition, students responded to how engaged they were in the course as a result of the online discussions. Finally, the survey included three open-ended questions about what students liked, disliked, and would change.

The students gave us permission to use their discussion board posts and blogs as data. We deleted responses from the students who did not give permission out of threaded discussion conversations. This left 111 discussion board discussions to analyze. We also copied and analyzed blogs. As with the discussion board, if a student responded to a blog post but did not give permission to use his/her responses as data, we deleted the content of the post from the data. This yielded 132 blog posts to analyze.

Data Analysis

We analyzed the data in this study both quantitatively and qualitatively. We felt that this mixed-method approach would give us deeper insight into what was happening in these discussions.

Quantitative Analysis

In the discussion board, each discussion forum included three threads each consisting of a mini question that the instructor posed. To ascertain the length of the posts, we counted the number of words in each participant's responses to the three discussion questions as one initial posting. The blogs were organized with one larger instructor-generated question per module. To compare the two, we counted the number of words

in each student blog response as one initial posting and averaged this across the eight blogs in the EDG 615 course. Choosing to use word count as a measure of engagement in the discussion was important to this analysis because it was one way to measure who got the floor in these discussions and for how long. We also chose to use length of posts to measure how much students posted to each prompt and responded to classmates.

The quantitative analysis involved comparing the length of the initial postings for the discussion boards and the blogs as well as the number and length of peer comments to these initial postings.

Qualitative Analysis

To qualitatively analyze these data, we relied on grounded theory and discourse analysis. We chose grounded theory (Strauss & Corbin, 1994) because it is a strategy for systematically starting with basic description and then moving to conceptual ordering based on codes and themes. The overall categories were social comments (S), personal connection to the material (PC), and academic comments (A). From these three larger categories, we came up with subcodes (see Table 2 for analytical codes). As we coded, we simultaneously took analytical notes as themes and patterns emerged. These analytical notes helped us adjust the codes and identify trends in the data. Once both sets of data were analyzed we compiled these analytical notes to see some consistent themes. Then we went back into the data and did a closer analysis of the data on these themes. This closer analysis involved a content analysis of certain codes, further coding, and searching for exemplar posts.

Analytical Frame

We employed a discourse analysis approach to these codes and themes, where we sought to connect these isolated discussions to larger discursive practices and to create a layered analysis. We relied on both discourse analysis (DA) and critical discourse analysis (CDA) to help us make sense of what we were seeing in both the discussion-board and

blog conversations. Both discourse analysis and critical discourse analysis are predicated on the belief that language is a social practice, and although it takes place locally, it is influenced by larger factors beyond the immediate context. Discourse analysis (DA) is a methodology that analyzes language as it is related to larger social practices (Gee, 1999). Critical discourse analysis (CDA) connects small discussions to larger discursive practices but implies that all social interactions are based in unequal power relations (Fairclough, 1995). While we were informed by both these analytical lineages, we did not apply a strict DA or CDA approach to this data; instead we drew upon the framework of unpacking situational conversations to better understand how these contributed to the larger creation of learning communities. However, we did rely on Fairclough's (1995) heuristic of a three-tiered analytical approach as we analyzed our data. First, we engaged in a textual description where we examined the conversations in both the discussion boards and the blogs. This first level provided the foundation as we widened our analytical lens to interpret why these discussions occurred. It was at this second level that we drew on other data sources, such as the surveys, to help us better understand how these discussions were indices of a larger discursive community. Finally, we engaged in explanation, where we speculated on how these two formats affected the types of discussions and communities created and suggested implications to this work. Although by no means do we suggest that we are employing a critical discourse analytical frame to this work, we do draw on the heuristic of moving from the micro to the macro to better understand our data. which derives from the work of those who employ both discourse and critical discourse analysis.

Although we made many efforts to gather various data that would enable us to draw conclusions about how the format of these discussions affected the learning communities, we recognize some limitations to our methodology that would preclude replication of this study. For

Table 2. Analytical Codes

Social Comments (S)	Personal Connection Comments (PC)		Academic Comments (AC)		
	Subcode	Explanation	Subcode	Explanation	
Comments that were not related to the content of the course	Personal Critique (PC)	Using personal information to critique	Stating Beliefs (AB)	Stating personal beliefs related to the academic content	
	Personal Question (PQ)	Asking a question based on a personal experience	Answering Question (AQ)	Directly answering the question prompted by the professor or the assignment	
	Personal Extending (PE)	Using personal experience to extend a topic	Responding to Reading (AR)	Directly responding to the reading, often citing it directly	
	Personal Supporting (PS)	Using personal experience to extend a topic	Creating Question (CQ)	Creating a question based on the academic content	
	Personal Sharing (PSH)	Sharing a personal experience	Summary (AS)	Summarizing the academic content	
			Responding to Classmate (RC)	Directly responding to another classmate about the academic content	

example, we realize that different instructor styles play a major part in how learning communities are created. We did not account for the fact that these two classes were taught by different instructors who inevitably employed different interactional styles when dealing with students. We also recognize that these two classes covered different content. Finally, the students in each course are different, which can also lead to varying communication patterns, as often just one classmate can alter the tone and direction of a discussion, both in face-to-face environments and online. Although these are definitely methodological limitations, we feel that the results of this study are still worth sharing in a larger context. We will return to these limitations at the end of our analysis as we consider the pedagogical decisions that we make in our online teacher education classes based on these findings.

Results

Textual Description

Discussion board conversations. In this study, we first quantitatively tabulated some overall information about the threaded discussions. We found that the mean of initial posts (student-initiated threads) was 127.4 words per post (SD =59.42). Each threaded discussion had a mean number of .87 (SD = .43) responses from classmates that averaged 49.7 (SD = 21.82) words per response.

When we coded the transcripts, we specifically looked at how students responded to each other and what type of content dominated these posts. Although we found that responses to each person were fewer and shorter in discussion boards, we noticed that these discussions were characterized by more back-and-forth dialogue, meaning that the author of the original posting frequently responded back to his or her peers and inspired a collaborative discussion around a topic.

In describing these discussions, we chose to look closer at the academic versus personal types of posts that the students produced. We categorized academic responses as those posts that stated beliefs about the content, directly answered the instructor's questions by referring specifically to the reading, and provided a summary of the content or responded to a classmate's discussion by drawing specifically on the content. We coded a post as a personal comment when its content dealt with giving a personal experience to support, extend, or share personal examples about a topic. We found that students who used discussion boards had a higher percentage of academic (63%) than personal (37%) responses. In addition, students engaging in discussion-board conversations tended to stick to the topic more and engage in less "social" conversation.

Blog conversations. With the blogs, we found that the mean of initial posts (student's initial blog post) was 405.7 words per post (SD = 140.57). Blogs had a mean number of 2.8 (SD = 1.27)responses from classmates that averaged 260.1 (SD = 124.73) words per response.

We used bidirectional, independentsamples t-tests to compare threaded

discussions with blogs. There were statistically significant differences between blogs and threaded discussions both in length of initial postings, t(14) = 5.16, p <.01, and in length of responses, t(124)= 18.4, p < .01. Students using blogs wrote significantly longer initial postings and significantly longer responses to peers than students using discussion boards. The difference between threaded discussions and blogs in the number of responses from classmates was not statistically significant.

Although the blogs had longer initial posts and longer responses to initial posts, one noticeable difference was that there was less back-and-forth conversation. Initial blog posts tended to be left by the owner and not returned to even when there were other comments on this post. We also found that students using blogs used 55% academic compared with 45% personal responses, which was much more evenly distributed than the threaded discussions posts. Furthermore, when we specifically zeroed in on the informal versus formal codes, we looked at the pattern of social comments that had little connection to the topic. We compared this to the more on-task academic responses. We found that the students using blogs engaged in more informal comments, especially sharing parts of their personal lives through photos, videos, and personal comments on their blogs.

Interpretation

Once we examined the discussions using both quantitative and qualitative analysis, we widened our lens so that we could begin to understand the differences that we saw in these two types of online discussions. It is at this level that we start to make sense of—or interpret—our data. It is also at this stage that we examined other data—such as the surveys and field notes as well as other research studies—to help us understand these differences, especially as they related to learning communities. From this widening, we developed three themes that enabled us to connect the micro conversations to broader discursive traditions.

Patterns of Interaction: Drawing on Discursive Traditions

The first theme that we explored was how these conversations connected to larger discursive traditions. For example, two distinct discursive patterns emerged as a result of the format of these online discussions. In the discussion boards, the discussions tended to be rooted in a conversational model that we labeled "School Talk." In her study of classroom discourse, Cazden (1988) found that often teachers would initiate (I), students would respond (R), and the teacher would evaluate (E) (IRE). In the discussion board conversations, we found a similar pattern of discussion. One person would assert a point, and then another classmate would build upon or comment on this point in a back-and-forth fashion. The following exemplar illustrates this: The teacher posted a prompt, Student 1 responded to the prompt, Student 2 elaborated on this point, and then Student 1 responded back to Student 2. This type of back-and-forth discourse was much more common in the discussion-board conversations.

T: Although there is no such thing as a perfectly reliable assessment, how is a "more reliable" assessment different from a "less reliable" assessment?

S1: I tend to rely too much on multiple choice and then I read more into the question therefore, making the wrong selection (unless, of course, the answer is obvious).

... As a teacher, you think, "He's really got it." But, you just wonder why he could not get the multiple choice.

S2: It is possible that some students seem to understand the concept well, but really have only learned the concept when it is presented with a particular set of words ... But if a multiple choice question worded it as "the average distance of score points from the overall average"—I may not have recognized that as a correct

\$1: I agree. I always think how different these assessments can be.

We found that the instructor's shorter questions and the way the topics were linked in Blackboard's threaded discussion feature contributed to this pattern of discussion. This was also seen in the shorter mean number of words in both the initial posts and the comments observed in the quantitative analysis. This manifested itself in much shorter bursts of back-and-forth dialogue, as illustrated by the above example.

This pattern of discussion contrasted with the type of discussion that occurred in the blogs. In the blogs, students tended to engage in a discursive tradition that we labeled "Podium Talk." A podium talk involves one person speaking about a topic followed by a few comments from the audience after the talk has concluded. We found this to be a much more common type of discursive pattern in blogs. On blogs, as documented through the quantitative analysis, students tended to have larger initial posts, often followed by a couple of comments but rarely a back-and-forth discussion. The conversations resulting from the blog posts felt more like what Rovai (2007) found, in which students just tended to throw their posts out to sea with little going back to them once they were completed. For example, in the following exemplar, the student who posted the blog talked about how curriculum looked in her native Puerto Rico. This comment was followed by a

response from the instructor and then a comment from a student:

\$1: Our present task is to examine why we need to consider curriculum. As teachers, it is imperative that we constantly look at curriculum since it is the medium used to perform our work.... Most of my early schooling was in Puerto Rico and as I recall, it was the traditional style. I can see the benefits of a holistic education in which students can engage the textbook, their culture and be able to think interdisciplinary. As a world language teacher, I definitely see the advantages of and practice in my classes the integrated approach. I want my students to be able to communicate in Spanish in a meaningful way. I want them to explore, appreciate and experience the differences and similarities between their culture and others.... I think this is what Wiggins calls the need for a modern curriculum. One that has the capacity of making our students "citizens and students of the world."

T: Hey—thanks for brining [sic] in your experience growing up in Puerto Rico—it really makes me wonder about the curriculum debate in other countries....

S2: Well as I did most of my schooling in Morocco. Where the educational system was a copy of the French one, and just by saying so you would go huh! The Moroccan government would change the curriculum taught in K–12 but that change brought with it a lot of problems and conflicts as we are a bilingual system. The French curriculum felt sometimes as wearing borrowed suit that doesn't fit.

Learning Community: Collaborative vs. Social

Although we recognized the importance of community building as a key to learner success, we did not realize that

this would look dramatically different as a result of the way we structured these discussions.

For example, in the discussionboard course, community was really built through the back-and-forth dialogue that occurred as part of the class discussions. Although the instructor started the course with a threaded discussion to introduce students to each other, little of this personal information permeated the weekly discussions about the topic. The sense of community that was built around collaboration in these discussions was clearly intended to support learning. Community was facilitated in the way that the students responded back and forth to each other. The students frequently addressed each other by name in their responses and used language such as "You phrased that well," "You raised an interesting point," "I like your idea," or "Your comment made me think." For example, in the following exemplar, the student responded to another student directly to promote a positive collaborative environment:

I found both of your examples helpful to our discussion of assessment. I believe you may have been the only one to bring up the topic of assessment regarding patient education. Your suggestion is a great visual method to explain norm-referenced interpretation.

The development of the learning community in the blogs was much different. First, there was less backand-forth collaboration between the students. Instead, there was much more sharing of personal life. For example, in the blogs, students frequently included photos of themselves, their families, and their pets. They even took photos of their classroom to demonstrate connections to the material. The blog setting was more informal, personal, and social. One student frequently provided links to YouTube clips and even posted a slideshow of his wedding. In the following exemplar, the student begins her blog with a totally off-topic greeting to the other classmates in her group:

Happy Spring!!! Although I have prayed for Spring for weeks, Spring has not been good to me or the other teachers. Allergies and respiratory infections are flying through the teaching staff. Unfortunately I was a victim, but I will pay the price for all of this sunshine.

This type of social talk was common, especially at the beginning and endings of blog posts.

Engaged Learning through Discussion: Different Impressions

In online courses, we measure engagement through participation in the activities that we create. Vonderwell and Zachariah (2005) asserted that participation in online courses is measured by joining in active discussions. We realized that instructors and students may understand participation and engagement differently. As they were teaching the courses, both instructors perceived students' participation in the asynchronous discussions was perceived as student engagement. Students, however, did not appear to equate their level of participation with their feelings of engagement. In the discussion-board group, the students perceived themselves to be less engaged than those in the blog group as a result of these threaded discussions (see Table 3, p. 10, and Table 4, p. 11). Only 18% of students reported being very satisfied with the discussions, 36% reported being very satisfied with how the discussions helped them learn content, 18% reported being very satisfied with being part of a learning community, and only 30% reported that they were very satisfied with the discussions' effect on their learning of

In the blog group, the students perceived themselves to be more engaged than those in the discussion-board group as a result of these threaded discussions. Seventy-eight percent (78%) of students reported being very satisfied with the discussions, 78% reported being very satisfied with how the discussions helped them learn content, 44% reported being very satisfied with being

part of a learning community, and 56% reported high positive that [being highly positive about how?] the discussions affected their learning of content. On all measures the blog group selfreported a more positive impression of their engagement as a result of their discussions.

Engagement, however, looked a bit different from the instructors' perspectives when we examined the content of the posts—specifically academic versus personal types of posts. When looking at the two formats, we found some differences in content of posts. For example, the discussion-board conversations tended to be more academic in nature. The students tended to stick more to the topic and responded with responses that more directly related to the content of the course. The following exemplar demonstrates the types of academic responses that were more prevalent in the EDG 624 (Assessment & Evaluation) discussion-board posts:

Norm-referenced assessments are mainly used in standardized testing to compare how groups of students do compared to previous groups. It is helpful when comparing schools within the district to see if certain topics are being taught differently and how (as a whole) we could improve.... Criterion referenced assessments are used more in the classroom.... Teachers use this information to clarify their instruction and change it if necessary.

This exemplar demonstrates what we coded as an academic summary. The student provided a summary of the difference between norm-referenced and criterion-referenced assessments. The percentage of academic responses (63%) in the discussion-board conversations demonstrates that these discussions tended to be more focused on the content.

This differed when blogs were used as a way to engage in discussions. Blog posts tended to be more casual in nature. The students in these courses seemed to rely on more personal anecdotes and

Table 3. Course Satisfaction

	Very Satisfied	Satisfied	Somewhat Satisfied	Not Very Satisfied
Participating in online discussions as part of this course				
Blogs	78%	22%	0%	0%
Discussion Boards	18%	46%	36%	0%
Communicating with classmates through these discussions				
Blogs	56%	44%	0%	0%
Discussion Boards	27%	36%	36%	0%
Communicating with the instructor through these discussions				
Blogs	78%	22%	0%	0%
Discussion Boards	36%	27%	27%	9%
Learning content through these discussions				
Blogs	78%	22%	0%	0%
Discussion Boards	36%	27%	27%	9%
Feeling of being part of a learning community				
Blogs	44%	56%	0%	0%
Discussion Boards	18%	46%	36%	0%
Feeling that your opinions were valued				
Blogs	56%	44%	0%	0%
Discussion Boards	46%	27%	27%	0%
Feeling that you could accurately communicate your thoughts				
Blogs	67%	33%	0%	0%
Discussion Boards	55%	36%	9%	0%

examples to respond to the content. The following exemplar illustrates the tone of these prompts:

Twenty-one years ago, I read a book called "The Seven Laws of Learning and Teaching" during my Sunday school training in my church....
Why do I share this? Because as I read through this article it was clear to me that the most basic principles of pedagogy are not that complication [sic], instead they have been made complicated with the desire of higher expectations.

In this exemplar, the student drew on a personal example of coming across a book years prior that helped her understand the content of curriculum. Instead of just providing an academic response to the article that she had read for that week, she started her response with personal sharing to demonstrate her point. The percentage of academic responses for the blogs was smaller than the discussion board in personal (45%) versus academic responses (55%).

Discussion and Explanation

As we moved outward from the microlevel conversations to make sense of how these two formats affected the types of discussions and the learning communities, we engaged in an explanation of our data. It was at this level that we were also forming hypotheses about why these discussions looked different. We were not making direct correlations between influences, but rather proposing our ideas, based on our specific data, as well as others who have researched in this area. It was at this level that we hoped others would continue to contribute to an explanation of what influences these discussions and what factors we need to consider as online teacher educators as we create our classes. For this specific study, we tried to relate our themes to the topics of learning communities and discourse relations to explain the differences that we found in our data.

Connection to Learning Communities

As previously mentioned, both of the instructors for these two courses believe

in the social construction of knowledge and looked at these online discussions as a way to create learning communities in these online classes. We strongly believed that these discussions would enable our students to be engaged in learning new material and that learning communities and engagement were inextricably linked. Rovai (2007) also connected engagement with community building, stating that the goal in online courses is to create a learning environment that motivates students to be active learners, participate in positive social interaction, and be engaged in the course. However, after analyzing the types of communities that were created in these two classes, we wondered how the format of the discussions affected the community that developed.

The community created as a result of the discussion-board conversations was more collaborative but also more academic. Although a surface analysis suggests that students were on target as they discussed content, on the survey only 30% of the students in the discussion-board group indicated that they felt part of a learning community, as compared with 67% of the blog group. The community created as a result of the blog conversations was less collaborative but more personal, and the students responded that they felt more engaged and more satisfied as a result of these discussions, although on the surface these discussions were less academic.

To explain this difference, we turn to both the type of communities created as well as Brown's (2001) stages of community building. First, one thing we need to be clear about when we create learning communities in our classrooms is the function of the community in terms of the course goals. For example, in the EDU 624 course, the community that seemed to be created was more of a knowledge-building community (Bereiter, 2002). Students' interactions were clearly focused around the content and learning the knowledge associated with assessment and evaluation. A knowledge-based community has the function of coming together to learn a new body of knowledge, where each member

Table 4. Perceptions of Learning Community

	Very Satisfied	Satisfied	Somewhat Satisfied	Not Very Satisfied
I was able to accurately communicate with my classmates through the DBs/blogs				
Blogs	67%	33%	0%	0%
Discussion Boards	40%	30%	30%	0%
I felt like part of a learning community as part of the DBs/blogs				
Blogs	67%	33%	0%	0%
Discussion Boards	30%	30%	40%	0%
My classmates listened to me through the DBs/blogs				
Blogs	33%	67%	0%	0%
Discussion Boards	10%	40%	50%	0%
My instructor listened to me through the DBs/blogs				
Blogs	78%	22%	0%	0%
Discussion Boards	40%	40%	20%	9%
The DBs/blogs helped me to understand the course content				
Blogs	56%	44%	0%	0%
Discussion Boards	30%	20%	50%	0%

contributes to this understanding in a collaborative way. Although this is an effective type of learning community, it may be less satisfying compared to the more social type of learning community that showed up in the blog groups. For example, based on the conversations in the blogs, this community appeared to be more of a community of practice (Lave & Wenger, 1998), where participants shared what was happening to them in the classroom and connected this to their learning. This community was more social and more personal, which perhaps caused the students to place a higher value on it. We believe that we need to look closer at what type of communities are created and how these align both with the goals of the course and with the students' engagement with the material.

Another explanation of the different types of communities may lie in how the communities were developed. According to Brown (2001), online learning communities have different phases of development, and when groups go through these phases, they experience a higher level of engagement. The phases are:

- Phase One—Relationship building: Making online acquaintances or friends
- Phase Two—Community conferment: Feeling a kinship with community members around a shared task

Phase Three—Sustained community: Developing long-term and/or intense association with others through personal communication

Although both groups went through the first phase, the students using blogs also added photos and videos. They personalized their blogs in ways that the threaded discussions, which were all text based, could not. Next, Brown (2001) believes that being part of a long, thoughtful discussion on a subject of importance to all is also an important part of a community. As we saw, students who used blogs engaged in these long, thoughtful discussions, which—while they were not always collaborative and academic-were definitely lengthier. In the students' surveys, students using blogs felt more listened to and valued in their posts than students using discussion boards.

Finally, Brown (2001) believes that having comfort with the tools that support a community affect the success of sustained communities. Although students who had taken online classes before may have been familiar with the format of threaded discussions, this is not a widely used way to communicate. Students may have been more familiar with blogs and social networking in more global contexts and therefore may have found this to be a more satisfying venue for communicating with others.

Connection to Larger Discursive Practices

Although it is crucial to recognize that online discussion is fundamentally different from face-to-face discussion, we were able to draw on some models of discussion to help us make sense of our online conversations. For example, the students in the class that used discussion boards tended to engage in more back-and-forth discussions. The discourse in the discussion board was much more academic and school oriented. Drawing on work from Cazden (1988) and Nystrand, Wu, Gamoran, Zeiser, and Long (2003), the language of recitation tends to dominate classroom discussion. Often, discourse is teacher controlled, with short bursts of student contribution. The threaded discussions tended to replicate this rigid back-and-forth interaction, as it was directly tied to the content of the class. Even the students in their responses to each other replicated the teacher-like evaluation of comments, such as "good job" or "good point." Perhaps because Blackboard is a sanctioned academic platform, students felt more constrained to participate in school-like conversations. When we read these conversations, we felt that they were targeted and productive, but the students reported feeling not as engaged in these discussions as those students who participated in blog conversations. Perhaps, we, as teachers, feel more comfortable in the traditional

Initiative-Response-Evaluate (IRE) model of school-based discussion, which taints our evaluation of which mode of discussion was more successful.

The blog discussions had a very different feel. These discussions were characterized by one student sharing long opinions and usually making personal connections to the topic, with other students sharing their personal stories in relation to the initial post. Fairclough (1995) asserts that language is often a reflection of a social structure, and we believe that the social structure of a blog is fundamentally different than the social structure of a threaded discussion. Rymes (2008) asserts that the discourse of mass media is finding its way into classroom discourse and, as a result, is beginning to change the discourse patterns we see in the classroom. It would make sense that the social structure of the language of social media might influence the way students interact in a blog setting. For example, personal sharing of stories and opinions dominate social media platforms, such as Facebook, Twitter, and blogging. Students may find that the blogs released them from the typical participation structures found in classroom discussions and allowed them to broaden the way they converse with others in an online class setting. The students who used the blogs did feel a greater satisfaction with the community and engagement as a result of using the blogs.

Conclusion

Cazden (1988) asserted, "Although classroom discourse is the principal medium of learning in school—'the language of learning'—teachers rarely pay attention to how they structure it" (p. 56). In this study, we specifically examined how we structured our classroom discourse in our two online classes. We feel that examining online pedagogy is particularly important as more of us involved in teacher education become engaged in online teaching. We also believe that social learning can and should take place online, but we are continuing to think critically about how this can look and how to

effectively structure the building of these online learning communities.

Through this study, we began to see how altering the format of asynchronous discussion affected both the discursive practices that were embodied as well as the type of learning community that was established. Although we do not believe that one was superior to the other (we even disagreed with the students on this one), we do feel that it is important for us as online educators to look closer at how we structure discussions and the reverberations of these decisions on the learning itself.

In this conclusion, we will address two lingering questions that have arisen as a result of this analysis. First, we will address the implications of the two different courses' content. Then we will discuss the practical implications that will help us, and hopefully others, move forward in designing effective online pedagogy in teacher education courses.

Limitations Revisited

As previously mentioned, this study was conducted with two different courses and two different instructors. Although we believe that the structure of the two discussions contributed to the differences noted, we cannot dispute that the content may have contributed to this difference as well. We are aware that this comparison may not have high validity because of this difference, but the alternative was to explore students' feelings of engagement/learning community in one of the courses without having any basis for comparison. Had we done so, we would have missed some important observations. Having the opportunity to compare enabled us to raise questions for further research that we had not considered before, such as:

- How does the content of the course influence students' feelings of engagement?
- To what extent does the content of the course influence students' preference for discussion format?
- How does a student's level of comfort with the content influence his or her perceptions of engagement/communi-

- ty? Does this have any effect on his or her preference of discussion format?
- What are the advantages/disadvantages of engaging students in structured discussions that do not directly correlate with the tone of the content (e.g., using the less formal blogs to discuss something more academic, such as assessment)?

We feel that by first better understanding the implications of how discussions are structured, we can move forward to explore the many variables that facilitate more engaging learning experiences with content considerations.

Implications for Teaching

We began this research as two instructors new to online teaching. We engaged in certain pedagogical practices because that seemed to be the way that it was done. However, we realized through this research that we need to carefully consider the choices that we make in our online courses, as they are just as important as in our face-to-face courses and have consequences for our students' learning. As teachers, we are committed to socialized intelligence and learning mediated through interactions with others. Investigating how these micro discussions connect to larger themes of learning communities, discursive patterns, and engagement was not only eye opening, but it also lead us to reconsider some of our teaching practices. As reflective practitioners, we are constantly thinking about changes to our pedagogy. On reflecting on this research, some of our ideas include:

Varying the format of discussion within a course. We could have students use discussion boards for half of the discussions and blogs for the other half of the discussions, and then survey the students regarding their preferences and engagement.

Affirm a sense of community. With an understanding of the importance of learning communities, we can affirm students' postings that are personal and/or social and encourage students to engage in practices that can lead to productive community building.

Be explicit with students about the type of community that is being created. We can make students aware of different types of communities, such as community of practice vs. community of knowledge, and talk about the advantages and disadvantages of both.

Engage students in purposeful **reflection.** We can have students reflect on their participation in discussions individually and on how they contributed to the group. Reflecting on personal discursive practices can lead to more productive participation in these communities.

Provide exemplars as models. We can use exemplars to model different types of responses—academic versus personal— and discuss how each type can lend itself to different types of learning and engagement.

Explore paradigms of mental models and discursive styles. By providing students with an awareness of what types of mental models are facilitated in different types of settings, we can create opportunities where the structure does not correspond with the model (create dissonance) and learn more about how our discursive styles are supported/encouraged within different contexts.

We hope this study encourages others to examine their own online teaching practices and as well as the reverberations of these choices and how they relates to creating effective pedagogy and enhancing student learning.

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