Four Online Discussion Strategies: Perceptions of Seven Doctoral Student

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Abstract

In the last few years, online courses have increased at rates inconsistent with available research about online best practices. Although past research has demonstrated increased course performance through effective online discussion boards, few studies have examined participants' perceptions of varying instructional strategies used to facilitate these discussions. The purpose of this study was to examine student perceptions' of the effectiveness of four online instructional strategies in creating online discussions. Specifically to the context of this study, we explored seven doctoral students' perceptions of the following four instructional strategies used for online discussions in a graduate literacy class: Problem-Based Learning, Discussion Web, 3-2-1 Strategy, and Case Study. We identified the strengths and challenges of each instructional strategy, offered four conditions for effective online discussion strategies, and suggested future research directions.

The expansion of online courses and programs in the past few years has been staggering. In fact, statistics showing the number of higher education students who have taken an online course has increased from 9.7% in 2002 (Allen & Seaman, 2011) to 46% in 2011 (Parker, Lenhart, & Moore, 2011). With this growth, it is clear that schools do not need to know more about attracting students to online courses and programs; rather, they need to know more about best practices for online teaching.

Fortunately, the literature about the delivery of online classes has been growing. This literature is especially critical for an emergent issue: it appears that students are dropping out of online courses and programs more quickly than face-to-face classes (Author, 2010; Park & Choi, 2009; Wang, Foucar-Szocki, Griffen, O'Connor, & Sceiford, 2003). Undoubtedly there are several reasons for this, but perhaps one solution is to ensure online discussions are engaging and meaningful. Since online discussions are a common denominator in online classes, and indeed for many are the heart of the online experience, it seems especially important that educators know how to plan and implement this instructional format (Koh, Herring, & Hew, 2010; Rourke & Kanuka, 2009; Roby, Ashe, Singh, & Clark, 2013; Schallert et al., 2009). Specifically, studies are called to demonstrate how online discussion boards increase student interaction (Schallert, et al., 2009), increase learning outcomes (LaPointe & Gunawardena, 2004), and increase course performance (Cheng, Paré, Collimore, & Joordens, 2011).

Many studies of online learning focus on measuring the overall depth of student learning (Garrison, Anderson, & Archer, 2001; Im & Lee, 2003; Meyer, 2003) or the effectiveness of instructional strategies (Kanuka, Rourke, & Laflamme, 2007; Richardson & Ice, 2010). Although some studies elicit student perceptions of online discussions (Chen & Wang, 2009;

Akyol, Garrison, & Ozden, 2009; Christopher & Tallent-Runnels, 2004), few examine the

participants' perceptions of varying instructional strategies. The purpose of the current study

was to explore seven literacy doctoral students' perceptions of four instructional strategies used

in online discussions to address Han & Hill's (2006) claim that: "Future research needs to focus

on how various strategies are employed in multiple contexts and how they might contribute to

the discussion" (p. 46). The following questions guided the research: 1) What were the strengths

of each instructional strategy? and 2) What were the challenges of each strategy?

Literature Review

Online courses have been defined traditionally as either hybrid courses or fully online

courses. Hybrid courses are also known as blended courses (Lorenzetti, 2004) and "combine

elements of face-to-face instruction with elements of distance teaching" (El Mansour &

Mupinga, 2007, p. 243). Unlike fully online courses where students meet entirely in virtual

environments, hybrid courses allow students to meet both in classrooms as well as in online

environments. In both hybrid courses and fully online courses, discussion boards are the key

means of online communication for students and instructors.

Discussion Boards

The literature suggests online discussion boards are advantageous when they provide an

equitable space for all students. These democratic spaces "allow participants who do not speak

in classes an opportunity to have a voice and no one dominates the discussion" (Ryan & Scott,

2008, p. 1639). This equality prompts more substantive discussion as well as increased

participation and sense of community (Baglione & Nastanski, 2007). Promoting community

through collaborative learning in an online classroom results in higher levels of critical thinking,

creativity, student initiative, and empathy (Chen & Wang, 2009; Palloff & Pratt, 2007; Richards, 2007).

However, such advantages associated with online discussions have been connected to challenges as well. For instance, the role of time in online discussions can be a challenge for instructors to respond to students who may perceive a timely response from their instructor as necessary to their learning (Riley, Jensen, & Santiago, 2005; Schallert et al., 2009). Additionally, the amount of time to prepare for discussions and respond thoughtfully has been reported as a challenge (El Mansour & Mupinga, 2007). Even though some studies have shown that increased time for student postings has been connected to deeper levels of student learning (Garrison, Anderson, & Archer, 2001; Song & McNary, 2011), other studies have claimed that online discussions do not reach the deepest degree of critical thinking solely based upon the amount of time spent online as the majority of student postings in these studies remained at a medium level of thought development (Kanuka et al., 2007; Christopher et al., 2004).

Other challenges associated with online discussions are sometimes linked to the facilitator's role. Facilitators who fail to match tasks and purposes to online discussions have encountered challenges in the classroom environment (Merrill, 2004). According to Pozzi (2010), different types of tasks foster different types of interactions, with unstructured activities creating more social interaction and structured tasks forcing more collaborative learning. Garrison, Anderson, and Archer (2001), however, have argued that interaction alone does not fully engage participants at higher levels of thinking, emphasizing design, structure, and leadership as critical for learners to engage in deeper levels of thinking. Similarly, Ryan and Scott (2008) found that the structuring of questions was key to stimulating online discussion,

claiming, "The use of closed questions and teacher-directed discussion may not lead students to making thoughtful contributions" (p. 1639). Overall, there are many variables that facilitators need to consider when selecting strategies that effectively promote online discussions (Fish & Wickersham, 2009).

Asynchronous Discussion Boards

Evidence has suggested that the application of online discussion paired with the overall organization of the online experience can have considerable influence on the depth of student learning online (Kanuka, Rourke, & Laflamme, 2007; Pozzi, 2010; Richarson & Ice, 2010). Discussions for online learning can be organized into two categories: synchronous and asynchronous. Synchronous discussions require students to participate at set periods of time, while asynchronous discussions allow them to participate with more autonomy and flexibility.

Research with asynchronous discussion boards has called for more studies to examine higher-order thinking and overall effectiveness (Andresen, 2009). Wise, Perera, Hsiao, Speer, & Marbouti (2012) have argued that there is a missing gap in the research of how individuals experience online asynchronous discussions, citing the importance of the connection between the engagement of the interaction and meaningful learning (Ho & Swan, 2007; Morris, Finnegan, & Wu, 2005).

We chose asynchronous discussions for the context of our study because it continues to grow in popularity (Northover, 2002; Parsad & Lewis, 2008) and because various studies support the advantages of this format. For example, a discourse analysis (Schallert et al., 2009) of discussion boards found more positive findings for generating discussion by "experience

sharing, idea explanation, and self-evaluation functions" (p.74) in asynchronous discussions

versus synchronous discussions. Furthermore, asynchronous discussion boards give students

more time to interact and reflect before responding (Ajayi, 2010; Beeghly, 2005; Nicholson &

Bond, 2003).

Theoretical Framework

Social constructivist theory was deemed an appropriate theory to guide this study because

from this perspective learners are seen as active, self-regulating seekers who construct

knowledge by building on previous experiences and through interacting with others (Palincsar,

1998; Vygotsky, 1978, 1986). Indeed, social interactions are a major tenet of this theory

(Esterberg, 2002), and as other researchers have noted (Murphy, Mahoney, Chen, Mendoza-

Diaz, & Xiaobing, 2005; Wickersham & McGee, 2008), student learning is enhanced in online

courses that embrace a social constructivist paradigm. As a result, understanding the social

aspect of teaching and knowledge construction is crucial to understanding participants'

perceptions of online discussion strategies (Ajayi, 2010; Gee, 2003; Jain, Jain, & Jain, 2011;

Song & McNary, 2011).

Methodology

This qualitative study was grounded in the work of Patton's (2002) explanation of

evaluation research: "When one examines and judges accomplishments and effectiveness, one is

engaged in evaluation. When this examination of effectiveness is conducted systematically and

empirically through careful data collection and thoughtful analysis, one is engaged in evaluation

research" (p. 11). We deemed Patton's methodology appropriate because the purpose of this

study was to examine student perceptions' of the effectiveness of four online instructional

strategies in creating online discussions, including strengths and challenges, of four online

discussion strategies. As a result, we identified a priori the two themes of strengths and

challenges for each online discussion strategy.

Participants

The study participants were seven literacy doctoral students enrolled at a large, mid-

south, urban university. At the time of the study, all participants were part-time students, with

six teaching in K-12 settings, and one serving as a district literacy specialist. Five participants

were white, two African-American, and all were females who had taken online courses. Six of

the seven had taken other graduate level classes together.

The professor, in her nineteenth year at the university, had taught numerous hybrid and

online graduate courses. Additionally, she had a background in conducting both action research

and technology-related research (Author, 2005). Like others in the field (Connelly & Clandinin,

1988; Holly, Arhar, & Kasten, 2009; McNiff & Whitehead, 2010), she valued the process of

systematically studying her practice, especially when engaging in innovative practices. Because

the structure of the class included the new twist of adapting instructional strategies to an online

format, and also because the doctoral students were eager to learn about conducting research, the

professor felt there was a clear fit between the class and action research. As a result, she invited

the seven students enrolled in the class to participate in the study. Although the students knew

they would not receive extra credit, all seven agreed to participate in the action research, which

included participating in the online discussions and gathering the data. When the course ended,

the professor invited all seven students to continue in the research process. At that time, three

students agreed to continue with the professor to analyze the data and write an article together on

their findings. The students who chose not to continue with the study all cited time constraints as the reason for not continuing this process.

The three students who did continue are referred to as student-researchers in the remainder of this paper. All three student-researchers were in the early part of their doctoral coursework. One taught elementary school and the other two taught high school English. All three had a strong interest in technology integration in the literacy curriculum and in online teaching.

Course Description

The goal of the course, *Composition: Theory and Practice,* was to provide in-depth knowledge of theory, research, and pedagogy as related to the field of composition in K-12 education. The course was a new offering for the university and was offered as a hybrid, alternating meeting one week for three hours face-to-face and meeting one week asynchronously online, meaning there was not a designated time for online discussions. One of the primary assignments of the class entailed eight weeks of reading and discussing the required text, Handbook of Writing Research (MacArthur, Graham, & Fitzgerald, 2006). During the first week of class, the professor and the seven students decided which chapters they would read and discuss, and each student signed up to be the discussion facilitator for a specific chapter. The professor based the decision to include student facilitators from previous studies portraying the benefits of shared learning responsibilities (Baran & Correira, 2009; Lock & Redmond, 2006). Four of the weekly discussions were face-to-face and four were online.

During the second class the instructor modeled how to facilitate a classroom discussion

using Paired-Retelling, an established literacy strategy where students retell a selection of a text

to a partner (Koskinen, Gambrell, Kapinus, & Heathington, 1988). During the first class she

explained how Paired-Retelling is used to foster collaborative discussions and assigned readings

for students to teach their partner. For the remaining seven discussions, the weekly student

facilitator, whether face-to-face or online, was free to select the discussion strategy she wanted to

use, although it had to be adapted from a documented educational instructional strategy. The

chosen online instructional strategies included: 1) Problem-Based Learning, 2) Discussion Web,

3) 3-2-1 Strategy, and 4) Case Study. All three student-researchers signed up to facilitate one of

the online discussions; a student who did not continue as a student-researcher facilitated the

online case study strategy.

Data Sources and Analysis

The same data were collected for each of the four online strategies. The week after each

online discussion, the professor conducted a focus group interview with all students (see

Appendix A) followed by the students' completing a survey with open-ended questions related to

the strategy and an anonymous rating scale (see Appendix B). Students interviewed each

facilitator individually (see Appendix C) and all interviews were audio-taped and transcribed.

Throughout the study, the professor and student-researchers recorded reflections, questions, and

insights in a research journal and at the end of the semester all online discussions were

downloaded.

The data were transcribed and analyzed at the completion of the study by the professor

and the three student-researchers. Analysis began by reading a data set in its entirety to gain

insights about that particular online strategy (Mishler, 1986). A data set for each strategy

included a: 1) focus group interview, 2) student survey, 3) facilitator interview, 4) research

journal, and 5) online discussion transcripts. Next, using open-coding, initial categories were

generated inductively for each data set (Strauss & Corbin, 1990). An emphasis was placed on

triangulating findings (Lincoln & Guba, 1985) by using multiple data sources. Collectively, the

categories generated were: relevance, organization, supports student learning, peer interactions,

engagement, time, communication, participation, effort, and technology. Analysis was

proceeded by: 1) sorting the categories by strengths or challenges, 2) refining the categories, 3)

returning to the data set for confirmation of hypotheses, and 4) identifying common underlying

themes. Reliability of the coding was enhanced by the four researchers first analyzing the data

individually, then meeting regularly as a research team, both online and face-to-face, to negotiate

the underlying themes. All seven students in the class received a copy of the findings and were

asked to critically analyze the interpretations of the study as it related to their understandings of

what occurred. Student email responses were used to confirm our findings. Our intentions were

to involve the "research participants in the construction and validation of knowledge" (Lather,

1986, p. 265). From this multi-level process of analysis, the strengths and challenges of each of

the four online strategies emerged. Unless otherwise noted, the findings represented in our

results were explicitly mentioned by at least two-thirds of the participants.

Findings

In this section, we introduce each of the four strategies that were used to promote online

discussions. We provide a brief description of how the strategy was used in this study, followed

by the findings that related to its strengths and challenges (see Table 1).

Table 1: Strengths and Challenges of Four Instructional Strategies Adapted for Online

Discussions

Discussion strategy	Strengths	Challenges
Problem-Based Learning		
Prepares students for real-life problems by introducing a problem scenario. Students first analyze the problem before determining a path to solution with minor facilitation from instructor	• Focuses on relevant and meaningful problems • Engages and motivates students • Links theory and practice	• Requires adequate time to complete • Relies on a well-developed, meaningful problem • Needs a problem broad enough to meet the needs of all students
Discussion Web		
Generates discussion on controversial topics by researching both sides and presenting the cases. After discussion, students take a stance and defend their opinion.	• Promotes higher-level thinking • Fosters open-mindedness	• Requires controversial topic • Creates discomfort for some students
3-2-1 Strategy		

Discussion strategy	Strengths	Challenges
Connects students to the text by providing a structured discussion format. After reading, students summarize 3 main ideas, find 2 interesting issues, and create 1 question for further research. Students then discuss one another's ideas.	• Provides focus for reading • Promotes student autonomy • Facilitates comprehension	• Requires equitable reading assignments • Limits the scope of reading topics • Needs clear directions
Case Study		
Presents relevant issues to students in multiple steps. Students make initial judgments before they are given additional information in segments. Students continue to build and shape their learning throughout the case.	• Activates prior knowledge • Allows for technology integration • Connects to teaching context • Promotes thoughtful reflection	• Relies on well-developed materials • Requires extensive time for the facilitator

Problem-Based Learning Strategy

The first strategy, Problem-Based Learning (PBL), originally was developed as a strategy in the medical field to prepare students for realistic situations they would encounter in their

careers (Schmidt, Rotgans, & Yew, 2011). PBL is defined as providing "learning opportunities that are relevant to the students, the goals of which are at least partly determined by the students themselves" (Gallow, 2000, para. 1). Hmelo-Silver (2004) broadened the learning context of this strategy, explaining it is a student-centered pedagogy designed to help students learn content knowledge through problem solving. Advocates of PBL have emphasized that it is a constructivist approach to learning where students engage in self-directed learning and teachers serve as facilitators (Barrows, 1996; Gijselaers, 1995). In these environments, both face-to-face and online, documentation of increased critical thinking skills has emerged (Sendağ & Odabasi, 2009). Critics of PBL, on the other hand, have argued that students are cognitively overloaded if too much information is added too quickly, and therefore caution that the strategy may not be suited for novices (Sweller, 2006; Sweller & Cooper, 1985; Cooper & Sweller, 1987). It is also noted that studies are needed to investigate technological scaffolds and online effects of PBL (Henry, Tawfik, Jonassen, Winholtz & Khanna, 2012).

In our study, the online facilitator positioned students in a real world context by selecting a relevant educational issue for the seven literacy doctoral students: how to allocate funds for a countywide literacy program. Students were expected to work as a committee with different district roles and arrive at a unified grant proposal for solving this problem. On the first day of the discussion unit, students read and responded to the description of the grant that omitted details about how the money would be divided and spent. Students also read a description of the county and the goals of its literacy program. On the day of discussion, students discussed how to divide into research specialists for each division needing research, i.e. technology for beginning

writers, technology for writing in the content areas, technology for writing with special

populations, etc.

On the next day of discussion, students read the same anchor chapter in their textbook

concerning writing with technology. They discussed the implications the research had on their

specific area with their partners, and on the following discussion day, read and responded to

other group's postings. At the conclusion of the discussion unit, students individually ranked the

ways that they thought the money should be spent along with a brief explanation and

corresponding citations.

The researchers identified three strengths as expressed by the participants for using the

PBL strategy for online discussions: 1) it focuses on relevant and meaningful problems, 2) it

engages and motivates students, and 3) it links theory and practice. Both the students and

facilitator found it relevant and meaningful because it entailed real-world, authentic problems

that connected theory to practice, as the following student explained on the survey:

> To me, it's very frustrating when I'm given an assignment that I can't see any relation to
>
> what I'm doing or what I plan to do, and so [the facilitator] did a great job of finding this
>
> problem that applied to all of us.

 Furthermore, students reported being engaged and motivated to invest more time and energy in

discussions that were meaningful to them, especially when these discussions linked theory and

practice, as illustrated in this student's survey:

> I knew that if I had to rank these areas [grant funds], I'd know enough about them and
>
> understand what they were, to say which one I thought was the most useful, and which

one I thought was the least useful. So I went back and read the chapter way more in depth

than I would have if I had not been asked to rank all five.

There were three main challenges as reported by the participants in association with using

the PBL strategy: 1) it requires adequate time to complete, 2) it relies on a well-developed,

meaningful problem, and 3) it needs a problem broad enough to meet the needs of all students.

Notably, both the facilitator and students reported time issues. These time-related frustrations

were associated primarily with expecting a lot of work in a short period of time. This led

students to suggest that several weeks are needed to complete online PBL discussions. Other

challenges related to creating a relevant problem and meeting the needs of all students. As one

participant discussed during the focus group interview, a professor needs to: "know your students

and what motivates them, so that you can develop a situation that they're all interested in and

motivated to participate in."

 In sum, these findings suggest that Problem-Based Learning is ideal for linking theory

and practice with real-world situations when creating an online discussion. Indeed, it is easily

used with current, relevant topics. It may take, however, a skilled instructor to understand the

complexities of creating and pacing PBL online discussions that are relevant to all students.

Discussion Web Strategy

The discussion web strategy offers a framework that allows students to discuss both sides

of a controversial issue (Alvermann, 1991). Students are encouraged to provide evidence, work

in groups to consider all perspectives, and refine their own thinking before writing their final

individual views on an issue. This strategy has been shown to promote interactive learning, provide structure for analyzing difficult texts, and support independent learners (Buehl, 2001).

In our study, the facilitator introduced the discussion web strategy in the form of a graphic organizer. This organizer included a space for students to list pros and cons of the topic. Students were asked to work in groups to answer the question: Should we use automated-graders for writing assessments? After reading the text chapter and additional related online materials, each group posted evidence both in support of and against automated-graders. After reading other groups' evidence, each group next reached a consensus related to the topic and posted it for the class. During the final step, students wrote their own position statement, then posted and responded to each other's papers.

According to the data of the participants, there were two major strengths of using the online discussion web strategy: 1) it promotes higher-level thinking, and 2) it fosters open-mindedness. Students overwhelmingly agreed that the discussion web promoted higher-level critical thinking, perhaps even more deeply than a face-to-face debate. As this student explained:

I think it's really better than what you think of as a typical debate, because in a typical debate you've done all your preparation before you come in and talk to each other. In this case [online], it led to a different preparation and then we talked and I went back and forth with what I thought and things other people were bringing up. I know I even added to my own ideas. I was like, 'Oh, wait, I found something new.' In a typical debate situation, you don't have that opportunity to go back and do more research in the middle.

The second strength of this strategy was that it promoted open-mindedness through peer interaction. Because multiple students in this study admitted that they highly valued the opinions of their peers, they were willing to recognize their preconceived biases and eager to explore alternative viewpoints, as evidenced during an interview: "It was just a lot of fun going back and forth because we were just looking at it from two different points of view and then having an opportunity to discuss that; I thought that was really rich."

On the other hand, the researchers found two challenges as expressed by the participants in association with the discussion web strategy: 1) it requires controversial topics, and 2) it creates discomfort for some students. First, since it is topic-dependent, facilitators should select controversial and relevant topics as this facilitator explained during an interview: "I think you have to be careful about what you're using this strategy with because you have to use it with something that has a pro and a con." During the interview, the students agreed that the "match" between the chapter topic and the strategy was a key element to the success of the discussion and the learning. Thus, the researchers found that the planning of the strategy can be challenging for the facilitator, who must weigh the participants' background knowledge and the perceived relevance of the topic. Additionally, the researchers found that participants viewed the facilitator as effective when providing clear directions, expectations, timelines, and feedback.

The second challenge when using the discussion web strategy was some students expressed discomfort when they disagreed with their peers. Although students reported they knew one another from previous classes, and generally felt comfortable with one another, a few reported they felt insecure about sharing their writing and thoughts, as this student cautioned in her free response:

I think that it is great that our class has a community in which we can debate with one

another's ideas but still respect one another as people. I think that possibly in some

classes that might not be the case, and professors might have to give students more

guidelines about how to respond to one another appropriately.

In sum, these findings suggest that the discussion web is an effective online strategy for

encouraging students to be open-minded and for promoting higher-level thinking during online

discussions. Although there can be some discomfort whenever peers disagree, topics are perhaps

debated more deeply online than face-to-face. The facilitator's role is viewed as critical for

ensuring success by selecting a relevant, controversial topic with multiple viewpoints, and

creating a safe environment for students to share their thoughts.

3-2-1 Strategy

Grounded in the field of literacy pedagogy, the 3-2-1 strategy has been reported to help

students connect to informational texts by summarizing key ideas from their readings and

personalizing the reading by asking questions (Zygouris-Coe, Wiggins, & Smith, 2004).

Typically, this strategy requires students to identify three main points, two supporting or

interesting details, and one question after reading a passage. Essentially this strategy helps

students focus on what they know and reveals their uncertainties about the topic, generating

student-centered discussions around their ideas and questions.

In this study, the 3-2-1 strategy was adapted by first asking students to read the chapter

entitled, "Relations among Oral Language, Reading, and Writing Development." The student-

researcher facilitator, with knowledge of the others' teaching experiences and interests, assigned

two students to each of the chapter sections: oral development, reading comprehension, and new

directions. The students next summarized their sections in three main points. Then, they

commented on two research studies discussed in the chapter, and finally, revealed one area for

further research. Students were asked to post and provide peer feedback a minimum of three

times during the week. The first posting was their own responses to the 3-2-1 instructions; the

second was to comment on their partner's responses, as well as to another classmate who had

responded to a different section. The third posting required students to investigate their own

questions and post follow-up materials, then respond to one other student who had done the

same.

According to the data, participants reported that there were three strengths of the 3-2-1

Strategy: 1) it provides focus for reading, 2) it promotes student autonomy, and 3) it facilitates

student comprehension. In particular, all students mentioned becoming quickly focused on their

reading as a strength of this strategy, as explained in the survey: "Because students are explicitly

told what to read for during each of the three steps, they become quickly focused on their

learning, allowing for meaningful, critical readings." The 3-2-1 strategy was also connected to

student autonomy because students formulated their own questions about the assigned reading.

A student explained during a focus group interview that having this choice was motivating and

allowed students to tailor the assigned readings to their research interests by having the ability to

"[pick].... a question and move in a different direction." Finally, students reported that the

strategy increased their comprehension of the course material because they collaborated and

engaged in meaningful peer conversations.

Three specific challenges were expressed while using the 3-2-1 strategy: 1) it requires

equitable reading assignments, 2) it limits the scope of reading topics, and 3) it needs clear

directions. Although the facilitator reported that the strategy was easy to modify, students

explained it was somewhat ambiguous and frustrating unless they received explicit, clear

guidelines. For example, in the survey, a student shared her need for clear organization:

> ...but at the end when I was trying to find my research article (it took me a couple of days
>
> to find it) and then when I posted it, I didn't know where to post it, because we had so
>
> many discussions and things going on. I thought, do I respond to my original log?

Similarly, students expressed frustration when they recognized that some students had longer

passages to read and respond to than others.

Moreover, it was a challenge for the facilitator to use a strategy that focuses on reading

material while at the same time encouraging students to connect theory to practice, as the

facilitator noted in her interview:

> I would change my directions to make sure [I] ... encouraged more of the going out and
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> researching on your own from the beginning. If you're trying to get people to look at
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> furthering that in-depth discussion on how the reading applied to them, because I think
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> that that's definitely what it can be used for, just have people look and say, 'not that I
>
> want you to [remember all of] this, I want you to pull out what you think is most
>
> applicable and what interests you the most to go forward with'.

In sum, 3-2-1 was deemed as an appropriate strategy for reading and discussing assigned

texts online because students reported being focused on their reading very quickly. However, it

appears students view this strategy as less appropriate for connecting theory and practice. Even though the strategy is easy to modify, variables such as student backgrounds and equitable considerations for reading assignments were cited as needs to be examined before implementation of this strategy.

Case Study

The case study strategy has been widely applied to fields such as law, social science, and medicine, and it involves an in-depth, longitudinal analysis of a single issue, event, problem, or critical incident in a real-life setting (Boehrer & Linsky, 1990; Christensen, Garvin & Sweet, 1991; Christensen & Hansen, 1987; Merseth, 1991). Case studies generally are based on real events and tell a story involving issues or conflicts that need to be resolved; however, the results generally do not have a right or wrong solution.

In this study, three online cases were used from the online Southern Poverty Law Center's Teaching Diverse Students Initiative (1991) that all related to multiculturalism and writing instruction, the topic of that week's discussion. Information was revealed to students in small increments, allowing them to form judgments and question their assumptions while at the same time encouraging them to read articles and view videos from experts in the field. Students read the premise of their case studies, answered some initial questions about the case, and responded to their assigned partner's initial impressions. Then, students reviewed materials on the website that included additional details about the case, research articles, and videos of experts. After gathering this additional information, students once again answered questions and responded to their partners. Finally, students were asked to make connections between the assigned class reading, a chapter entitled "Teaching Writing in Culturally Diverse Classrooms,"

and the case. Students posted these reflections and then responded to their partners and one

other student.

According to the data from the participants, the case study method had four clear

strengths: 1) it activates prior knowledge, 2) it allows for technology integration, 3) it connects

to teaching context, and 4) it promotes thoughtful reflection. The most evident theme was the

activation of students' prior knowledge that forced them to examine their own

assumptions. Students, as explained in the survey, appreciated that the case studies allowed

them to first "form an initial impression." Having the time to pause and reflect provided them a

sense of accomplishment when they realized how much their thinking had evolved over time, as

this student explained during her interview:

 I think that [reflection time] is key to showing where you're starting from, so you have a

 place that you realize 'this is where I am' and then you get to the end and you're like 'this

 is how far I came'.

In this study, the case study strategy integrated a variety of online resources, and students

found the use of technology motivating and useful, as the following student explained during a

focus group interview:

 I enjoyed your video. It was just kind of fun to start off that way, to have that, you know

 that there's something about technology, just like our kids... it's motivating having that

 piece of technology there in the beginning.

Additionally, students reported that viewing the videos of experts helped solidify the

participants' learning and connection to practice, which in turn prompted thoughtful reflection

and diverse online discussions. Both students and the facilitator noted the importance of having

a well-developed case with multiple resources. They also noted that these resources are

beneficial for teachers to implement into their own teaching contexts.

Specifically, there were two challenges reported from this strategy: 1) it relies on well-

developed materials, and 2) it requires extensive time for the facilitator. Clearly, the biggest

concern was the challenge of locating appropriate resources, as the facilitator discussed during

the interview:

> I think I would warn [a] professor that it's not something that's easy to do. I was very
>
> fortunate to find the resources that I have. If you throw out something that is not as well
>
> developed, your students are not going to actually do well. I thought that this resource
>
> was very well put together. I think that that's the biggest message that I learned out of all
>
> this, is that these resources are out there; it's just a matter of finding them.

Naturally, this can be a time-intensive process for facilitators to locate, develop, and constantly

update thoughtful and complex cases.

In sum, the case study strategy was reported as having the potential to make learning real

and enriched. Participants reported that the variety of media, connections to the classroom, and

gradual release of information in organized steps allow them to examine their individual

assumptions and biases, which was key to promoting the online discussion. Finding a variety of

well-developed online materials or creating your own, however, could prove to be a daunting

task for a facilitator. Considerations for ample planning and location of quality resources should

be taken into account.

Discussion

According to the findings, students stated that all strategies promoted student learning

and discussion. Perhaps this was because the students were all either an online or face-to-face

discussion facilitator, or perhaps it was because they were participants of this study. Obviously,

this is one limitation of the study. What is also important to note, though, is that in addition to

the strengths of the strategies, students also identified the challenges. It is from these findings

that we offer the following four conditions for effective online discussion strategies: 1)

alignment to course learning outcomes, 2) unique considerations for planning, 3) integration of

technology tools, and 4) adoption of student-centered approaches to learning.

Condition One: Effective Online Discussion Strategies Require Alignment to Course

Learning Outcomes

It is evident from the findings and consistent with the literature (Ajayi, 2010; Beeghly,

2005; Ryan & Scott, 2008; Pozzi, 2010; Tyler-Smith, 2006; Wu, 2004) that different strategies

impact online discussions in a variety of ways. One positive impact results from coordinating

discussion strategies and intended course objectives. For instance, if you want students to read,

comprehend, and discuss dense and challenging material, then you might choose the 3-2-1

Strategy, which is appropriate for an in-depth study of the reading. However, if you want

students to examine a controversial issue, then you might select the Discussion Web Strategy; if

you want students to ground their learning in real world problems, then you might use the

Problem-Based Learning or the Case Study Strategy. When instructors are clear about what

students should learn, and understand the strengths and challenges associated with the variety of

online strategies, they can make an informed decision about how to structure online

discussions. This finding directly aligns with Lyons and Pinnell's (2001) constructivist principle that emphasizes the importance of students' active participation. When instructors select appropriate strategies, then students know what is expected of them and they can quickly become actively engaged in the class. While this class was a literacy course, the strategies were chosen not because they were literacy strategies, but because of the match between the desired learning outcome and the content of the readings each week. We suggest that this same process can also be used with other content area classes.

Condition Two: Effective Online Discussion Strategies Require Unique Considerations for Planning

The effectiveness of the strategies, unsurprisingly, was not the strategy itself, but its implementation. Our study, similar to others, suggests that designing and implementing online discussion strategies requires an extensive amount of time (Norton & Hathaway, 2008; Riley, et al., 2005; Schallert et al., 2009). We found that both students and facilitators struggled with managing time to complete the units thoroughly. For the facilitator, ensuring that each strategy can be completed in a manageable time frame and then finding the time to consistently give feedback to students was of utmost importance. Students became frustrated when they felt that they could not complete the assignments in a timely manner due to rushed deadlines and other class assignments. This finding relates to Lyons and Pinnell's (2001) constructivist principle that instructors need to provide additional experiences for learners who have not developed needed conceptual understanding. In this study, most students felt that they needed more than one week to complete the tasks involved with each strategy satisfactorily. We concluded students were not afforded adequate time for their learning and the facilitators did not have time for re-teaching.

Unlike face-to-face classes, this implies that the planning and organization of the strategy needs

to be fully developed before students begin accessing the online discussion. Planning the online

discussion strategy down to the very detail is critical. Many factors, including time limits, due

dates, technical issues, and directions, need to be fully laid out at the beginning of an online

course. Modifying assignments and deadlines during the process is difficult in an asynchronous

environment; perhaps the best suggestion is simply to remember that timelines are essential, yet

they must be achievable.

Condition Three: Effective Online Discussion Strategies Require Integration of Technology Tools

Facilitators also need to keep in mind the level of media and technology involvement of

today's students. While the definitions of the strategies used in this study did not call for media

as a necessary component, the integration of technology served as an engaging factor for the

students: indeed, students liked using the blogs, podcasts, and videos required during the online

discussions, and they wanted to see more of this practice. This link between technology

integration and student learning is consistent with Lyons and Pinnell's (2001) constructivist

principle for developing teachers' conceptual knowledge through conversation around shared

experiences. The online resources added an additional dimension to discussion, one that all

students used to build their online discussions. This conclusion is also consistent with other

researchers in the field who currently report students want technologies such as wikis, multi-

media, and Internet projects used in their online courses (Author, 2010; Hurt, Moss, Bradley,

Larson, Lovelace, & Prevost, 2012; Roby, Ashe, Singh, & Clark, 2013). Online instructors need

to stay abreast of current adaptations of technology for online classes by learning from

experienced colleagues, reading current research in this area, participating in professional

development opportunities at conferences and universities, and learning from their own students.

Condition Four: Effective Online Discussion Strategies Require Adoption of Student-

Centered

Approaches to Learning

Interestingly, many strategies are described in the literature without mention of a

theoretical perspective. We acknowledge that we selected four different strategies that were

grounded in a constructivist, student-centered learning paradigm, and we offer two guidelines to

promote such online student-centered learning strategies.

First, knowing your students is key to any online strategy. We concluded that throughout

this study, the facilitators' role continually evolved in response to students' needs. At the

beginning of each strategy's implementation, the facilitators were planners. From deciding

which strategy would best involve students with the content and produce the desired learning

outcomes, to selecting resources, the facilitators were engrossed in making decisions. Once

those decisions were made and communicated, the facilitators' role shifted to one of answering

questions. At this point, the facilitators had to be available to referee the questions and ignite the

discussions. Then, once students were engaged, the facilitators became a provider of feedback,

not only reading and monitoring participation, but also encouraging critical thinking through

thought-provoking questions. The role of the facilitator is a role that is connected to knowing

your students. Similar to Fosnot's (1996) constructivist perspective, we suggest that when

instructors assume facilitators' role, and students find the online discussions relevant and

meaningful to them, they become motivated and actively engaged in their learning and assume

responsibility for their learning.

Second, students want to engage in relevant, meaningful, and useful dialogues. They

appreciate online discussions that link theory and practice. Additional researchers have

supported this claim, emphasizing that learning is enhanced when students are engaged in

debates, inquiry, and higher-level thinking (Baker & Wedman, 2000; Duckworth, 1987). It

takes, however, a skilled instructor to understand the complexities and challenges of creating

higher-level online discussions. It can be challenging for an instructor to select a real-world

problem that meets all students' needs. For example, prior to a class' beginning, how many

instructors know and understand their students well enough to clearly delineate a fully developed

controversial issue, along with associated requirements that are manageable and timely?

Similarly, at what point in the semester do students feel they are part of a safe learning

environment where they are not penalized for disagreeing with their peers or facilitators? To

ensure instructors and students get to know one another as quickly as possible, we suggest that

during the first two weeks of an online course instructors include activities such as everyone

introducing themselves, posting a PowerPoint about themselves, or interviewing and writing an

introduction about a partner.

Suggestions for Future Research

This was a preliminary study that began unraveling the contexts for using various online

discussion strategies. The study was limited by time constraints: we implemented four online

strategies during one semester. We suggest that further research be conducted using each

strategy for extended periods of time, perhaps one strategy per semester. Additionally, because

time was brought up as an issue in the findings, future studies would be helpful in determining to

what degree time is a factor in online discussions.

Due to our interest in the qualitative nature of this specialized context, we also consider

the limitations of the sample of participants. First, we ponder the extent to which seven

participants limits the study. On one hand, we were able to spend the abbreviated time available

to gather multiple pieces of information from each participant regarding the multifaceted

complexities of their experiences. However, we also recognize that further research with larger

classes would provide additional insights about issues such as facilitator time during the

feedback process and how larger group dynamics affect online discussions. Next, we also

consider the extent to which the relationships in this study affected the nature of the discussions.

The participants in this study all were at least mildly acquainted with one another; several had

previously spent time together in face-to-face classes. As we recognize these relationships

impacted the familiarity of the participants in the discussions, we suggest future research to

further explore this complex phenomenon. Designing a study in which students have not had

such social dynamics, previous encounters, and hybrid learning environments could further

confirm our findings.

With the explosion of online courses in colleges and universities, and the use of online

learning in public school classrooms growing, we feel that the strategies researched here could

be used at any level; however, because we studied only the perceptions of doctoral students,

additional studies are needed. Studies at other levels would increase the body of knowledge for

the use and application of these online discussion strategies. We also note that there is a need for

the exploration of different strategies. As online courses and programs continue to grow,

additional studies will expand our insights on creating effective online discussions that keep

students motivated to continue their coursework and not drop out of their online programs.

Finally, as scholars continue to explore the heuristic nature of varying contexts in which

online discussions occur, we believe a more critical perspective could be developed involving the

specialized contexts of online learning. Blending both social constructivist theory and theories in

New Literacies, for example, could yield a more precise understanding of the ways students and

instructors interact together online. Scholars could compare the ways these understandings

solidify and extend current understandings of social learning theories. As more theories

involving online contexts are refined, it is our hope that the applicable nature of this research will

ground studies to consider the ultimate quality of education in such environments.

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Appendix A

Focus Group Interview Questions

1. Could you tell me what you would say if you were asked by an online professor to tell you about the _____ online discussion strategy that you used this week.

2. The professor is especially interested in knowing how you approached the _____ strategy?

3. Did this strategy help you learn new information this week? If so, how?

4. What do you think are the critical factors for having successful online discussions using the _____strategy?

5. The professor next asks you to tell you some things that he really needs to know about this strategy before he uses it.

6. Could you describe how you feel about using the _____online discussion strategy in a future online course? Why do you feel this way?

7. What kind of feedback would you like to give _____ about the strategy that she used this week?

8. Anything else you want to tell the professor about what you especially liked about this strategy?

9. Anything else you want to tell the professor about the issues and concerns you have with this strategy?

10. Anything else you want to share about this strategy?

11. Any questions for me?

Appendix B

Anonymous Rating Survey

Reflecting on _____ Online Discussion Strategy

1. What worked?

2. What didn't work

3. How could you strengthen/modify the strategy?

4. Would you recommend that instructors use this strategy in online courses? Why or why

    not?

5. What other comments or information can you share about this strategy?

Anonymous Rating Scale	
Criteria	Rating
Nurtures and supports students' learning	
Shows students are learning	
Promotes students' learning	
Is relevant to the way students learn	

Encourages student reflection and self-assessment	
Includes real-world information	
Fosters study autonomy	
Promotes active learning	
Promotes student interaction and collaboration	
Motivates student learning	
Enables me to contribute comfortably to the online discussion	
Enables me to contribute comfortably to my peers' online discussion postings	
Note: Each participant rated each discussion strategy on a scale of 1 to 5, with 1 being lowest and 5 being highest.	

Appendix C

Facilitator Interview Questions

1. Could you tell me what you would say if you were asked by an online professor to tell you about the _____online discussion strategy that you facilitated?

2. What role did you play as facilitator of this strategy?

3. Did the discussion meet/exceed your expectations?

   a. If so, how? If not, why?

   b. If so, why? If not, why?

4. What didn't work with your strategy?

5. Is there anything else that you want to share about what worked with your strategy?

6. What would you change about the strategy after using it?

7. Would you recommend this strategy to other instructors? Why or why not?

8. Is there anything else that you would like to share about using this strategy?