

EXPLORING STUDENT ENGAGEMENT IN AN ONLINE COURSE

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ABSTRACT

Student engagement in a collaborative assignment (high-impact practice) as part of an online graduate literacy course was examined. Data were gathered across three weeks of online discussions as part of a Student Assistance Team (SAT) assignment. The findings demonstrated that student engagement can be high in an online course, particularly when graduate students interact with both the course content and their classmates. In addition, it was found that student engagement in a collaborative assignment can support the transfer of course content learned to additional course assignments.

Keywords: student engagement, online instruction, and high-impact practices

INTRODUCTION

Online courses continue to be a growing method of instruction in institutions of higher education (Dixon, 2015). When the decision was made to put a long-time face-to-face graduate literacy assessment and evaluation course online, the course instructor/researcher wondered how the course could be made both engaging and rigorous (Chen, Gonyea, & Kuh, 2008). The course instructor began to delve more into her understanding of high-impact practices as a means by which to foster engagement and rigor. These are active learning practices that have been tested and shown to be beneficial to a variety of college students (Association of American Colleges and Universities, 2008). She attended a high-impact practices mini-conference on her campus and began reading research on high-impact practices and was intrigued by the success of high-impact practices with college students (Bonet & Walters, 2016; Kilgo, Ezell Sheets, & Pascarella, 2015; Kuh, O'Donnell, & Schneider, 2017).

The course instructor found that only a small amount of the research on high-impact practices and online course instruction existed, so she decided to adapt her new knowledge of these practices to her online course (Nichols Hess & Greer, 2016). Among the high-impact practices (first-year seminars and experiences, common intellectual experiences,

learning communities, writing and inquiry intensive courses, collaborative assignments and projects, undergraduate research, diversity/study away/global learning, service learning and community-based learning, internships and field experiences, capstone courses and projects, and ePortfolio), collaborative assignments and projects seemed to be the best fit for her online class (Kuh, et al., 2017).

The course instructor developed a collaborative assignment that simulated an experience the literacy specialist candidates in the graduate course might have as part of their duties as a literacy specialist in a school. The literacy specialist candidates in the course were asked to be members of an online Student Assistance Team (SAT). These teams have a variety of titles in schools, but they are designed for teachers to present data on their students and receive instructional recommendations (along with other recommendations) to assist with student success, improved behaviors, etc. The SAT assignment was meant not only to foster collaboration and engagement, but it was also designed to scaffold the graduate students as they completed an individual, larger, culminating, and more high stakes assignment for the course. The final project for the course was a case study report on one child each literacy specialist candidate assessed. The graduate students needed to

present the results of the assessments and make appropriate instructional recommendations in the report. As part of the course SAT assignment, the literacy specialist candidates presented data gleaned from their assessment sessions with one student in an online discussion forum and group members responded with recommendations. Using these online interactions and tasks, the course instructor sought to examine the graduate students' engagement in the course. Higher or lower levels of engagement were related to the quality of the recommendations provided, such as if the recommendations were based on research, if they were geared toward the specific strengths, needs, and interests of the child being assessed, and the quality of the description of the recommended instructional strategy.

REVIEW OF LITERATURE

The theoretical underpinnings of this case study are situated in the notion that people learn through social interaction (Vygotsky, 1978/1977). The collaborative SAT assignment, on which this research is based, was designed to provide peers opportunities to scaffold literacy specialist candidates' completion of an independent, high stakes, final case study report about the student they have been assessing and evaluating. Tracey and Morrow (2017) describe scaffolding as one of the key ideas of Vygotsky's Social Constructivism. During the SATs, peers provide supports as the literacy specialist candidates navigate new course content and attempt to make sense of literacy assessments, evaluation, and the transfer to instruction by using and manipulating tools as part of sign systems in the process of semiotic mediation (Tracey & Morrow, 2017). This study is grounded in the notion that social interactions and assistance from peers will enhance the learning of literacy specialist candidates.

Additionally, this study was grounded in Engagement Theory (Kearsley & Shneiderman, 1998) which draws on the importance of social interactions and worthwhile tasks for meaningful engagement. The theory is built around the elements of relating, creating, and donating. Relating deals with the interactions among participants that allow them to learn from each other. Creating relates to how they apply their ideas to the specific course context, while donating helps to understand the

authenticity of the learning environment and the connections to real-life applications. Many studies of online learning environments have grounded their work in Engagement Theory (Beldarrain, 2006; Hazari, North, & Moreland, 2009; Knowlton, 2000; Sims 2003). Kearsley and Shneiderman's (1998) work highlights collaboration, project orientation, and authentic focus which relate to key facets of the SAT assignments in the online graduate course that served as the context for this study.

Providing meaningful opportunities for social interaction in an online course can be challenging. Everett (2015) stated, "In order to create a strong sense of community and to help students engage with learning in online courses, instructors need to find ways to help students feel more strongly connected with each other." (p. 72). Interestingly, Chen, Gonyea, and Kuh (2008) found that distance learners were as engaged or more engaged than their counterparts who took classes on campus except when it came to collaborative learning activities. Given this information, the course instructor sought to create an online learning situation that fostered meaningful collaboration and mirrored a task the graduate students may need to complete as part of their job after graduation. Everett (2015) stressed that "engagement behaviors parallel later behavior" (p. 69). For these reasons, the SAT was used to examine student engagement.

The definition of engagement varies. Coates (2007) stated, "Student engagement is concerned with the point of intersection between individuals and things that are critical for their learning. Fundamentally, it is based on the constructivist assumption that learning is influenced by how an individual participates in educationally purposeful activities" (p. 17). With an online course, the course instructor must create opportunities for both social interactions and participation in purposeful activities to foster engagement and subsequently learning. This study adhered to Everett's (2015) definition of student engagement which is "the intention of a student to participate in a learning activity" (p. 69). Students' contributions to the discussion and use of course content can be indicators of their intentions and engagement in the activity.

There is an abundance of studies conducted about engagement in online courses (Bolliger & Martin, 2018; Martin, Wang, & Sadaf, 2018) and

multiple means by which to engage students in online courses. Dixon (2010) sought to determine what types of online activities were more engaging for students. She found it was beneficial for course instructors to seek out assignments that allow the students to engage in the course content with classmates. Her results showed that “across many types of courses when students readily identified multiple ways of interacting with other students as well as of communicating with instructors, they reported higher engagement in the course” (p. 8). The course instructor sought these higher levels of engagement for the SAT assignment.

STUDY DESIGN

This case study sought to examine the nature of student engagement during an online collaborative assignment as part of a graduate literacy course on assessment and evaluation. The case study took place across three weeks and investigated the usefulness and the effectiveness of the collaborative assignment. More specifically, the study examined how useful the assignment was at scaffolding learning and how effective the assignment was at helping the literacy specialist candidates complete their independent, high stakes, final case study reports on a student with whom they were working.

METHODS

Participants

The participants in this study were graduate students in a literacy specialist program at a Northeastern state college. There were 25 literacy specialist candidates who participated in this research, 24 women and one male student. These literacy specialist candidates previously participated in online coursework as part of their graduate program. All the participants were teachers with initial certification and limited teaching experience.

Context

The participants were from two sections of an assessment and evaluation course in the graduate literacy specialist program. The course is the first of three in a clinical sequence where students work with children to assess, evaluate, make instructional recommendations, and eventually teach literacy strategies (in subsequent courses in the clinical sequence). In this course, the graduate students learned about literacy assessments, practiced

scoring assessments, worked with case studies, and then administered the assessments to a child (Kindergarten to Grade 12). They individually analyzed the results of their assessments and made instructional and home recommendations as part of a high stakes final case study report.

To scaffold the graduate students, the course instructor gave individual and group feedback on all assignments on a weekly basis. The SATs were also developed as a means by which the literacy specialist candidates could receive scaffolding from their peers. The students were divided into five groups of three, one group of two (due to a student dropping the course), and two groups of four for the SATs across two sections. The course instructor set up individual discussion groups in the online course platform for each team. The teams met online for three weeks while they were assessing a child and writing initial drafts of their final case study reports.

After administering literacy assessments with their student, such as reading inventories, fluency assessments, tests of attitudes and motivation, and analyses of writing samples, the literacy specialist candidates posted the results and questions each week to the discussion group. Teammates examined the initial posts and made instructional recommendations based on the results. The groups were able to adhere to their own time frames within the one-week assignment period. Along with their initial posts that included assessment results and questions, the literacy specialist candidates were required to provide three instructional recommendations to their teammates each week for three weeks. The effectiveness of the SAT collaborative assignment is based on participation and fulfillment of the requirements of the assignments along with the quality of the posts and how the information contained in the posts was utilized to complete the final case study reports.

Data Gathering Procedures

The data sources included transcripts of the online SAT discussions, the graduate students’ reflections about their participation in the SATs, and their final case study reports (See Table 1 for Procedures).

The students were given the following directions for the SAT discussion:

For the SAT discussion, each team member should present some of the data gleaned from a student meeting (give a little background on the child and include data—use a consistent pseudonym). Choose one area of literacy per meeting (comprehension, word identification, writing, fluency, etc.). Each team member does NOT have to discuss the same area of literacy. Each person presents data and makes a request for help, the other teammates will offer suggestions. Your group can decide what works best—a discussion where everyone is online at a specified time or a discussion across the week. It must be on Blackboard so there is a record of what is discussed.

There were three SATs that lasted one week each in duration.

To reflect on their participation in the SATs, the students were asked to respond to the following prompts:

1. Complete what would be the minutes of the meeting on your student. For example, combine what was discussed about your student at all three meetings and write up what was discussed and recommended as if you were writing a report to an administrator. Address the effectiveness of the assignment in assisting you with your case study report.
2. Reflect on your performance as someone presenting student data to the team. Discuss all three meetings.
3. Reflect on your performance as a team member. Discuss your recommendations to classmates and how you came up with the recommendations.

This reflection was completed and submitted the week after the final SAT.

The culminating project for the course was a final case study report on the student they assessed. The literacy specialists had to write up assessment results and instructional recommendations for the parent(s) using information from the SATs to assist them. The report had to include the following

components: heading, background information, tests administered, observations during testing, summary and recommendations, and home recommendations, and the literacy specialists were graded on the overall quality of the report.

Table 1. Procedures for SAT Project

1.	Individual graduate students assess a P-12 learner
2.	Groups of graduate students present individual student data from assessment results, provide instructional recommendations based on the data presented by teammates, and receive recommendations based on their data. (SAT #1)
3.	Individual graduate students continue to assess a P-12 learner
4.	Groups of graduate students present individual student data from assessment results, provide instructional recommendations based on the data presented by teammates, and receive recommendations based on their data. (SAT #2)
5.	Individual graduate students continue to assess a P-12 learner
6.	Groups of graduate students present individual student data from assessment results, provide instructional recommendations based on the data presented by teammates, and receive recommendations based on their data. (SAT #3)
7.	Individual graduate students reflect on their SAT experiences
8.	Individual graduate students write a case study report on the P-12 learner

The participants completed the data sources during the course, but the data were not analyzed until after the course ended and grades were submitted.

Data Analysis

The transcripts of the SAT discussions were read and reread. They were initially coded for the number of posts made, when the posts were made, and what recommendations were made to examine the nature of the literacy specialist candidates' engagement, such as how they included course content and the specificity of the recommendations as related to the individual students and their strengths, needs, and interests. Other codes also emerged throughout analysis, such as codes related to literacy specialist candidates recycling recommendations (same recommendations made to more than one person regardless of students' strengths needs and interests) and the inclusion of an image or link with the recommendation.

After all the transcripts were coded, the course instructor was especially curious about the quality of the recommendations, such as if they were research-based, tailored to the student

data, or included images. She wondered if the students used the recommendations of their peers more often if an image was included on their final reports. The course instructor read through all the final case reports again and made a chart for each participant. She charted all the strategies recommended to them in each of the three SAT online discussions and who recommended them. Initial findings indicated that the number of recommendations used on final case study reports were lower than expected, so the course instructor then examined the number of recommendations made by literacy specialist candidates that were used in their own case study reports.

The graduate students' SAT reflections were reviewed and coded for any of the indicators of engagement. The reflections were also used to triangulate the findings from the other data sources regarding the engagement of the graduate students.

FINDINGS

This study examined the nature of student engagement during a collaborative online assignment as part of a graduate literacy course on assessment and evaluation. During analysis, the course instructor adhered to Everett's (2015) definition of student engagement which is "the intention of a student to participate in a learning activity." Everett also noted, "The learning activity should include observable behavior that affects the internalization of the content, with social and emotional implications and an intentional decision to engage" (p. 69). In this study, the course instructor was able to observe the graduate students' contributions to the discussion and how the content in the discussion impacted the students' final case study reports.

All the participants took part in all three of their SAT discussions; however, participation does not necessarily equal engagement (see Table 2 for Indicators of Engagement). The quality of the posts (intentionality and use of course content), not just the number of posts, demonstrated engagement. The literacy specialist candidates had a week to present data on the student they were assessing and respond three times to other group members with recommendations as part of each discussion. Through analysis, it was determined that 14 out of the 25 participants received the full benefits of the SAT discussions. The 14 participants presented

data on their students, provided at least three recommendations to their teammates, and received recommendations based on their data in all three discussions. It was found that 11 of the participants presented the assessment data from their student at the very end of the discussion deadline (one or more times). Many of their teammates were eager to complete their three recommendations and gave suggestions to teammates who presented their student data near the beginning of the weeklong discussion. At times, the graduate students who posted late did not receive any recommendations from their teammates.

The SAT reflections provided further information on the timing of posts. Several teammates of the late posters reflected on how difficult it was to provide quality recommendations at the very last minute and expressed frustration with teammates who posted late in the week. This is a limitation of the findings on the quality of engagement. Most of the teammates who posted late acknowledged this in their reflections. The majority of the participants who posted late explained that they had been unable to work with their student to gather new assessment data any sooner. Along with looking at when the literacy specialist candidates posted, the content of their posts was also analyzed to determine engagement.

Every participant completed all three of their recommendations in every SAT discussion group. There were some indicators regarding the quality of the recommendations that demonstrated higher and lower levels of engagement. The recommendations were analyzed to determine if they were based on research; if the recommendations were geared toward the specific strengths, needs, and interests of the child being assessed; and what the quality was of the description of the recommended instructional strategy. For instance, 13 of the 25 participants included one or more images or links to images in their posts to supplement their recommendations to teammates. These participants were viewed as having higher levels of engagement because of their intention to participate in the SAT discussion (Everett, 2015). There were students who were considered to be less engaged as they recycled recommendations they made to other teammates throughout the discussion, so these recommendations were not specifically tailored to the strengths, needs, and

interests of the student being discussed. Here is an example of a high- quality recommendation for a student who enjoys dance:

I think some strategies to help improve Serena's attitude toward writing in and out of school might benefit her. One strategy for improving her writing engagement might be to first create an environment in which she will thrive. You can compare this to a dance studio to help Serena visualize what you mean. If Serena was asked to practice dance somewhere less than ideal (a baseball diamond with no mirrors or wood floors, or her bathroom), she might find it difficult to achieve what she is going for that day in her practice. The same goes for writing! She needs to be able to find a spot that works for her and gets the ideas flowing. Serravallo (2017) suggests for the writer to first think about places where they have gotten their best writing done. Next, she should imagine what that space looked like. Then, she could try to create a space like that at home or in school to help promote a more positive writing environment. Some prompts to help Serena engage herself in this activity include:

- *What do you think you need in a writing space?*
- *Are you someone who likes quiet or background noise?*
- *What would the space look like?*
- *Describe it.*
- *You're telling me where you'd like to write. Describe what the space would look like.*
- *Sketch it!*

Another facet of the analysis that helped to determine engagement in the collaborative assignment was student internalization of the content (Everett, 2015). The data were analyzed for how the literacy specialist candidates used the recommendations of their peers in their final case study report assignments at the end of the course. Seventeen out of 25 students used one or more recommendations provided by their teammates during the SAT discussion in their final case study

reports at the end of the semester. A total of 57 recommended strategies were used in the final case study reports. These numbers are important not only to determine engagement but also the usefulness of the SAT discussion assignment overall, meaning to see if the assignment helped to scaffold the learning needed to complete the final independent case study report assignment. If it was not a helpful assignment, the course instructor would not use it again as part of the course. This led the course instructor to think about another way the SAT discussions could be useful to the literacy specialist candidates. After further analysis, she found that many students used the recommendations they gave to others in their own final case study reports. Twenty-one out of 25 participants used the strategies they recommended to their teammates in their own final projects. Two out of the 25 students did not use any of the recommendations from teammates nor their own recommendations to others in their final case study reports. This demonstrates that most participants were engaged in the class activity and used information from the collaborative assignment (SAT discussions) to help them with a future course assignment.

Table 2. Indicators of Engagement

Participant Findings	Indicators
14 out of 25	Received full benefits of the SAT: They presented student data, provided three recommendations for other students of teammates, and received recommendations based on their data from teammates.
11 out of 25	Received partial benefits of the SAT: They presented student data and provided three recommendations for other students of teammates. They posted their data late in the discussion and didn't always receive recommendations from teammates.
17 out of 25	Used one or more recommendations provided by their teammates during the SAT discussion in their final case study reports at the end of the semester.
13 out of 25	Included one or more images or links to images in their posts to supplement their recommendations to teammates
21 out of 25	Used the strategies they recommended to their teammates in their own final projects
2 out of 25	Did not use any of the recommendations from teammates nor their own recommendations to others in their final case study reports

An analysis of the graduate students' SAT reflections showed that most students thought the SAT discussion was a beneficial assignment. There were a few students who just reported the facts of the discussion, but most of the literacy specialist candidates reported on the benefits of the collaborative assignment. They liked looking at the data from a variety of students (not just their own), they appreciated a new set of eyes on their student's assessment data, and they enjoyed seeing how the quality of their posts or performance as a teammate evolved across the three discussions. None of the students wrote that the SAT discussions were not beneficial, but one person wished they were in person and another person reflected that she would have liked to have more of a conversation with her teammates, rather than just lists of recommendations. Overall, the assignment was effective in that the literacy specialist candidates used the recommendations they recommended or that were recommended by their teammates in their final case study reports. The findings from this research helped to describe the nature of engagement in the SAT discussions and helped to determine the effectiveness of the assignment.

DISCUSSION

This study examined the nature of student engagement in a collaborative assignment as part of a graduate online literacy assessment and evaluation course and its impact on an individual assignment at the end of the course. Overall, every participant took part in the online SAT discussions. This may be due to the strong social aspect of the high-impact practice of collaborative assignments. Everett (2015) pointed out the importance of having online course activities that promote active learning, and the graduate students took their job of making recommendations to teammates seriously. Some participants' low level of engagement had more of an impact on them rather than their teammates because they were the ones who did not receive any recommendations for their student because they posted late in the week. Dixon (2010) stressed the importance of providing students with opportunities to work with each other in online courses. This social aspect may have been the impetus for all the participants to complete their recommendations to each other across the three SAT discussions.

Dixon (2015) stated, "Student engagement is about students putting time, energy, thought, effort, and to some extent, feelings into their learning" (p. 146). These constructs of student engagement were evident across the collaborative learning assignment (SAT discussions) in this study. Every participant put in the time (although the time they posted was not always convenient for their teammates) to make at least three recommendations per discussion. The analysis showed that most students put thought, effort, and feelings into their posts. Many provided research-based strategies that were geared toward a particular student and many even included images to enhance the quality and clarity of their recommendations. It can be concluded that most of the literacy specialist candidates exhibited high levels of engagement during the SAT assignment.

IMPLICATIONS AND FUTURE RESEARCH

If the high-impact collaborative assignment was used again in the assessment and evaluation online course, the course instructor would make some changes based on the findings of this study. Given the indicators of what helped to determine that the graduate students were engaged in the collaborative assignment (SAT discussions), the course instructor would make adjustments to the requirements of the assignment. First, she would require that the literacy specialist candidates post the student assessment data early in the week so everyone has time to analyze the data and make appropriate recommendations. She would also (using examples from this study) create sample posts to model for students what helpful posts contain (research-based that are tailored to the strengths, needs, and interests of the student and include images). In addition, the course instructor would consider having the graduate students report why they did or did not use the recommendations from the SAT discussion in their final case study reports. This would demonstrate that they are not only engaged with but also thinking critically about the recommendations provided.

The collaborative assignment yielded such high levels of online course engagement that the course instructor recommends incorporating these opportunities into other online courses to scaffold student learning and provide for prolonged consideration of the course content with peers to assist in other assignments in the course.

Care should be taken to situate the collaborative assignment in an activity that mirrors a real-life scenario or task to highlight how the assigned tasks will be beneficial to students outside the confines of the course.

The course instructor found the collaborative assignment to be useful in fostering student engagement in an online course for graduate students. Further research on additional high-impact practices in online settings would be useful given the growth in online instruction (Dixson, 2015) and the success of using high-impact practices in higher education (Bonet & Walters, 2016; Kilgo, et al., 2015; Kuh, et al., 2017).

For course instructors using collaborative assignments, it may be helpful to use a formal measure to determine student engagement in an online course, such as the Online Student Engagement Scale (OSE) or another scale that includes the high-impact practices (Dixson, 2015) to determine the level of engagement of students.

CONCLUSIONS

This research on student engagement was based on a particular assignment and yielded findings that were very specific to the course taught. However, there are overall lessons to be learned from this study that can inform future online course instructors. This research demonstrated that student engagement can be high in an online course. A collaborative assignment (high-impact practice) can foster student engagement in an online course. The assignment should promote collaboration and student interactions while requiring work with the course content for an authentic purpose or mirroring a task that students will be faced with completing after taking the course (a real-world application). Finally, this research shows that student engagement can support an internalization of the course content that transfers to other aspects or assignments of the course.

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