

January 2014

Graduate Student Perceptions of the Use of Online Course Tools to Support Engagement

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Recommended Citation

King, Stephanie B. (2014) "Graduate Student Perceptions of the Use of Online Course Tools to Support Engagement," *International Journal for the Scholarship of Teaching and Learning*: Vol. 8: No. 1, Article 5.

Available at: <https://doi.org/10.20429/ijstl.2014.080105>

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Abstract

Graduate students in six online courses were asked to complete a questionnaire related to dimensions of engagement including participation and interaction, performance, studying, and relevance of material. Students were asked to indicate the importance of various online course features (e.g., online discussions) in enhancing their engagement in each dimension using a Likert scale. Twenty-six (29%) students completed the questionnaire. Students rated most course management system features as extremely important or very important. When the ratings for the four engagement areas were grouped by course site feature, the feature with the highest mean rating was “instructor feedback on assignments/assessments.” The feature with the lowest mean rating was “online chats with other students.” While the practices of the instructor in the courses studied may have influenced the students’ perceptions, it is clear that students especially value contact with the instructor.

Keywords

course engagement, online learning, graduate students

Cover Page Footnote

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College student retention is important for both the college and the student. Rates of retention in online courses are generally lower than in face-to-face courses (Carr, 2000). With increasing enrollments in online courses, it is important to explore methods that could be used in the online classroom to increase retention rates in these courses. While multiple theoretical models of student persistence have been proposed, most show that retention increases with increasing levels of academic and social engagement (Hossler and Bean, 1990; Tinto, 1993; Braxton, Hirschy, and McClendon, 2004). Handelsman, Briggs, Sullivan, and Towler (2005) identified four factors of student course engagement including skills engagement, participation/interaction engagement, emotional engagement, and performance engagement, and Ausburn (2004) determined that students ranked most important online course features related to structure (e.g., the syllabus). The purpose of the current study was to determine if students perceived specific tools available in an online course management system (e.g., course announcements, email from instructor, discussion board postings) to be more effective than others in increasing their engagement in the course in the four areas identified above.

Literature Review

Pedagogical Practices to Increase Engagement in Traditional Courses

Tinto (1993) recognized the importance of the classroom for both the social and academic integration of students. Kuh, Kinzie, Buckley, Bridges, and Hayek (2007) reported, "Student engagement in educationally purposeful activities was positively related to both grades and persistence" (p. 45). They reported that increased graduation rates were correlated to participation in effective educational practices (i.e., academic challenge, active and collaborative learning, student-faculty interaction,

enriching educational experiences, and supportive campus environment) as determined by the National Survey of Student Engagement.

Various pedagogical strategies may increase student engagement. Pascarella and Terenzini (2005) emphasized that pedagogical approaches focusing on active learning as well as those involving lecture may be used to promote learning. Kuh et al. (2007) noted the benefit of using “such engaging pedagogies as active and collaborative learning, classroom-based problem solving, peer teaching, service learning, and various forms of electronic technologies” (p. 92). Kuh, Kinzie, Schuh, and Whitt (2005) stated that active and collaborative learning strategies included the following as measured by the NSSE:

- (1) Asking questions in class or contributing to class discussions or both,
- (2) making class presentations,
- (3) working with other students on class projects inside or outside of class,
- (4) tutoring other students,
- (5) participating in a community-based project as part of a course, and
- (6) discussing ideas from readings or classes with other students, family members, or others outside of class. (p. 193)

According to Kuh et al. (2005), “What students *do* during college counts more in terms of what they learn and whether they will persist in college than who they are or even where they go to college” (p. 8). Similarly, Tinto (1993) concluded by saying, “Ultimately the success of our actions on behalf of student learning and retention depends upon the daily actions of all members of the institution, not on the sporadic efforts of a few officially designated members of a retention committee” (p. 212).

Pedagogical Practices to Increase Engagement in Online Courses

With escalating numbers of students enrolling in online courses, it is becoming increasingly important to understand student engagement in online courses and the various pedagogical

strategies which may be used to increase engagement. Dixon (2010) measured student engagement in online courses and found that students did not report any particular activity as increasing engagement but rather a variety of activities as effective. Students did indicate that levels of instructor presence and student presence were important for increasing student engagement. Results also suggested that providing multiple means for communication and interaction between the student and instructor as well as among students led to increased levels of engagement.

In a study of graduate students in an online program, Levy (2008) found that students valued “collaborative, social, and passive learning activities,” “formal communication activities,” and “formal learning activities” (p. 51), as well as the more practical activities related to logistics (e.g., downloading the syllabus and assignment guidelines) and printing materials. Young (2006) found that graduate and undergraduate students enrolled in online courses found the following items to be effective teaching practices: “adapting to student needs, using meaningful examples, motivating students to do their best, facilitating the course effectively, delivering a valuable course, communicating effectively, and showing concern for student learning” (p. 65).

Online Course Management System Features

Course management systems are widely used in the delivery of online courses, and a variety of features are available for use by instructors and students. Ausburn (2004) found that adult students in a blended learning environment most valued course design elements “containing options, personalization, self-direction, variety, and a learning community” (p. 327). When asked to rank features according to their importance to the student as a distance learner, students ranked highest the features related to structure (e.g., announcements and reminders, syllabus, and assignment instructions). Next, they ranked features related to content (e.g., slide presentations and Internet sites), followed by features related to convenience (e.g., contact information for the instructor and direct links to Internet

sites). Finally, students ranked features related to communication (e.g., discussion boards and e-mail) last.

Measuring Engagement

Numerous measures of student engagement have been developed and used. In addition, measures of the effectiveness of various online course management system features have been developed. Handelsman et al. (2005) developed the Student Course Engagement Questionnaire (SCEQ) in order to measure student engagement in particular courses. They determined four dimensions of engagement including skills engagement, participation/interaction engagement, emotional engagement, and performance engagement. Dixson (2010) modified the SCEQ to create the Online Engagement Scale, an instrument to measure student engagement in online courses. Ausburn (2004) developed a questionnaire listing the online course features available to her adult students through the course management system and asked the students to rank the features according to how important the features were to them.

Since the number of students taking online courses is increasing, understanding factors which contribute to student engagement in online courses is important. More research is needed comparing various pedagogical methods used in distance education as research comparing distance education to the traditional classroom is extensive (Abrami, Bernard, Bures, Borokhovski, & Tamim, 2011). In an effort to better understand features of online course management systems which may affect student engagement and thus student persistence, the research reported here examined graduate students' perceptions of the effectiveness of various online course management system features (e.g., course announcements, email from instructor, discussion board postings) on increasing their engagement in the course in four areas identified by research as factors of student course engagement (Handelsman et al., 2005): 1) skills (e.g., studying, reading materials), 2) emotional (e.g., making course interesting and relevant), 3) participation/interaction (e.g., asking questions, participating in discussions), and 4) performance (e.g., getting good grades).

Method

Participants

All students enrolled in at least one of six fully online graduate courses over a period of two semesters in 2011 at a land-grant university in the southeastern United States were invited to participate in the study. The author was the instructor for the course and emailed the students through the course management system to ask them to participate. The courses were designed for students interested in working in the community college as administrators, faculty, or workforce development personnel or for students interested in working in industry in the area of workforce development. The instructor provided a detailed syllabus at the beginning of the semester as well as weekly announcements to serve as reminders of what was due. For each topic covered in the course (approximately eight per course), the instructor provided assigned readings, written lecture materials with links to related Web sites, a discussion board prompt to which students were required to respond, and a written assignment or test. The students were also encouraged, but not required, to communicate with the instructor and other students using email, online chats, telephone, and/or face-to-face visits. The students were also encouraged to introduce themselves to one another through the discussion board at the beginning of the semester, and the instructor provided information about herself and ways to contact her as well. Students were able to monitor their progress by reading feedback provided by the instructor for assignments and tests and by accessing their grades through the course management system.

A pilot study was conducted in 2010; ten students were randomly selected to complete the questionnaire and provide feedback, and six students did so. The questionnaire was modified slightly based on the feedback provided by the pilot participants. Those students who participated in the pilot study were not included in the study. The university's Institutional Review Board (IRB) approved this study.

In the spring semester of 2011, 14 of 53 (26%) students completed the questionnaire. During the fall semester of 2011, 12 of 37 (32%) students completed the questionnaire. Students were asked to indicate their gender, age, enrollment status (i.e., full-time or part-time), and major. Of the respondents, 73% were female and 58% were enrolled full-time. For age, 42% indicated 20-29, 38.5% indicated 30-39, 8% indicated 40-49, and 11.5% indicated 50-59. For major, 38.5% indicated they were enrolled in a master's degree program in the department, 38.5% indicated they were enrolled in a doctoral program in the department, and 23% indicated they were enrolled in other programs.

Materials and Procedures

For this study, the researcher adapted the items in the SCEQ developed by Handelsman et al. (2005) and the Online Engagement Scale developed by Dixson (2010) as well as features of the online course management system noted by Ausburn (2004) to develop a questionnaire for students in online graduate courses (see Appendix). The questionnaire consisted of four items related to dimensions of engagement including 1) participation and interaction in the class: engaging in online conversations with instructor and other students, helping other students, and getting to know other students; 2) performance in the class: getting a good grade and doing well on tests; 3) studying on a regular basis, keeping up with readings, and taking/reviewing notes; and 4) making material relevant and interesting, helping you apply course material, and increasing your desire to learn material. Below each item, the questionnaire included a list of features often found in course management systems, and students were asked to indicate the importance of each of the online course features in enhancing their engagement using a Likert scale. Each student was also asked to indicate his or her gender, age, enrollment status, and major. Students were asked to complete the questionnaire and to return it to the researcher, who was also the instructor in the courses, via email.

Results

This study assessed graduate students' perceptions of the effectiveness of various course management system features in increasing their engagement in one of six courses. Twenty-six students completed a questionnaire with four sets of Likert-scaled questions related to engagement in the areas of participation, performance, studying, and relevance. Students rated most course management system features as extremely important or very important. Of the 1450 total responses given, 1157 (79.8%) were extremely important or very important.

For statistical analysis, student ratings were converted to numerical scores: extremely important (five points), very important (four points), somewhat important (three points), slightly important (two points), and not at all important (one point), and frequency distributions and measures of central tendency were used to determine results. When the ratings for the four engagement areas were grouped by course site feature, the features with the highest mean ratings related to feedback and information from the instructor while the lowest mean ratings related to interactions with other students (see Table 1 for students' ratings of the four areas combined).

Table 1
Student Ratings of Importance of System Features Combined for All Areas of Engagement

<i>System Feature</i>	<i>n</i>	<i>Minimum (from 5- 20)</i>	<i>Maximum (from 5- 20)</i>	<i>M</i>	<i>SD</i>
<i>Instructor feedback on assignments/assessments</i>	26	15	20	19.12	1.608
<i>Email to and from the instructor</i>	25	11	20	18.88	2.223
<i>Information about assignments</i>	26	15	20	18.38	1.768
<i>Course materials such as handouts and lecture outlines</i>	26	14	20	18.35	1.853
<i>Access to grades</i>	26	13	20	18.31	2.346
<i>Syllabus</i>	25	10	20	17.44	2.931
<i>Course announcements</i>	25	11	20	17.36	2.660
<i>Personal and contact information for instructor</i>	26	6	20	17.15	3.728
<i>Online discussions with instructor</i>	25	10	20	17.00	3.202
<i>Direct links to web sites of materials used in course</i>	26	10	20	16.88	2.930
<i>Email to and from other students</i>	26	8	20	15.69	3.147
<i>Online chats with instructor</i>	25	8	20	15.40	4.103
<i>Online discussions with other students</i>	26	8	20	14.85	3.246
<i>Online chats with other students</i>	26	8	20	14.19	3.816

Analysis of student ratings of course management system features for individual areas of engagement revealed some differences in how students viewed the importance of the course management system features. Figure 1 displays the percentages of students rating features related to information as extremely important or very important. Figure 2 displays the percentages of students rating features related to communication as extremely important or very important. Figure 3 displays the percentages of students rating features related to feedback as extremely important or very important. Over 90% of students rated information about assignments, course materials such as handouts and lecture outlines, access to grades, and instructor feedback on assignments/assessments as extremely important or very important for performance, studying, and relevance but not for participation. Email to and from the instructor was rated as extremely important or very important by over 90% of the students for participation, performance, and relevance, but not studying.

Figure 1
Student Ratings of Features Related to Information as Extremely Important or Very Important

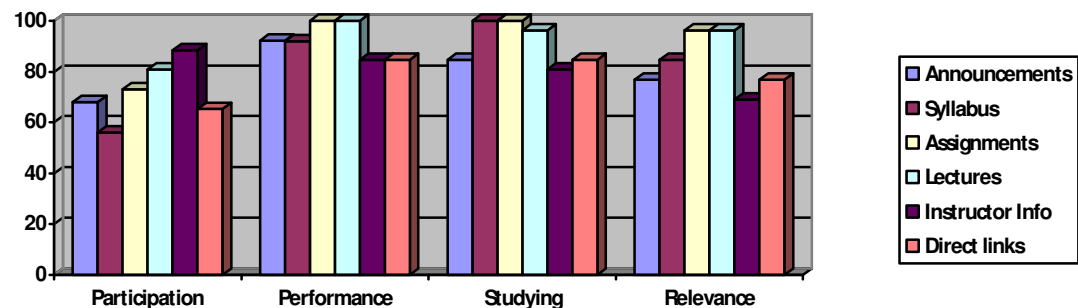


Figure 2
Student Ratings of Features Related to Communication as Extremely Important or Very Important

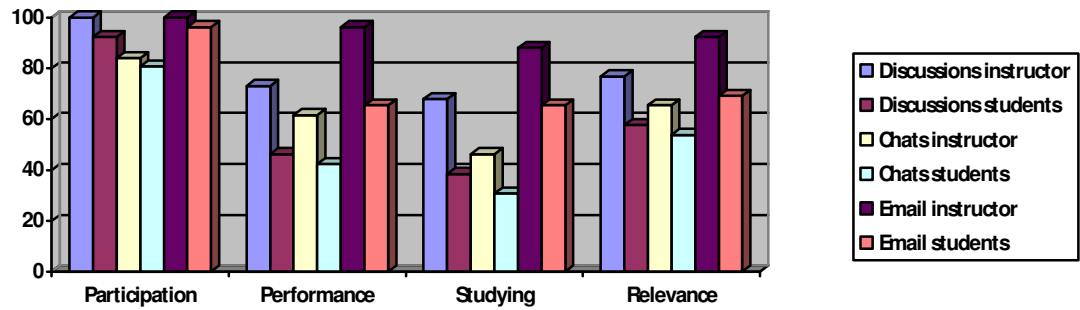
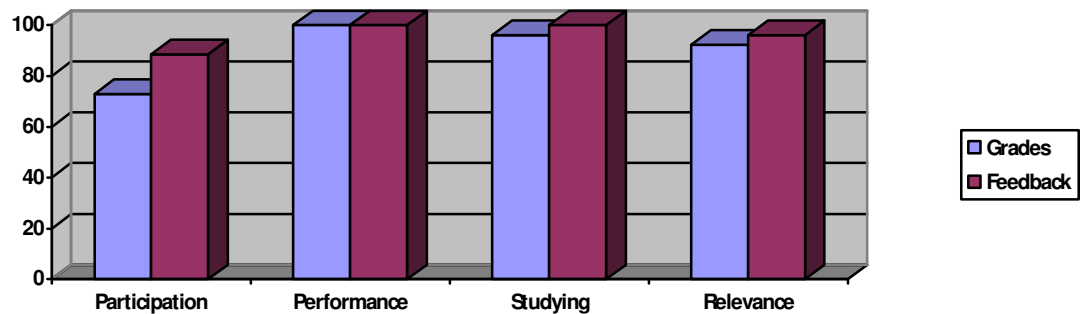


Figure 3
Student Ratings of Features Related to Feedback as Extremely Important or Very Important



Discussion

Increasing enrollments in online courses has led to concern about the retention of students in these courses (Carr, 2000). Overall, the present study indicated that students perceived that various course management system features were important to their engagement in the courses, rating most features as extremely important or very important. Most theoretical models

indicate that increasing the level of academic engagement may lead to higher retention rates (Hossler and Bean, 1990; Tinto, 1993; Braxton, Hirschy, and McClendon, 2004). These results add to the growing body of literature related to increasing student engagement in order to increase retention by indicating that various course management site features may be useful tools in increasing levels of student engagement.

Kuh et al. (2007) noted the importance of student-faculty interaction in increasing student retention. In the online classroom, students value communication and interaction with faculty and other students (Dixson, 2010; Levy, 2008; Young, 2006). In the present study, students rated most highly "instructor feedback on assignments/assessments." Other features rated high by students were "email to and from the instructor" and "access to grades." Students in the online environment may have felt that the feedback provided by the instructor was important to help them improve their performance on future assignments and tests and to help them understand the relevance of the assignment to their learning and career goals. Students may feel somewhat isolated in the online environment and may especially value interaction with the instructor that is specifically targeted to the individual student rather than the group as a whole.

Pascarella and Terenzini (2005) noted the usefulness of lecture to promote learning. In the present study, over 90% of students rated course materials such as handouts and lecture outlines as extremely important or very important for performance, studying, and making material relevant and interesting. Much of the responsibility for mastering the course material rested with the student and his or her ability to read the assigned material and ask questions when clarification was needed. The lecture materials may have aided students in this task.

Levy (2008) noted the importance students placed on logistical activities such as downloading the syllabus and assignments. In the present study, over 90% of students rated information about assignments as extremely important or very important for performance, studying, and making material relevant and interesting. Perhaps the information enhanced their

engagement in the course as they studied and completed the assignments.

Pascarella and Terenzini (2005) as well as Kuh et al. (2007; 2005) noted the importance of activities involving active learning, such as contributing to class discussions and working with other students on projects. In the present study, "online discussions with other students" and "email to and from other students" were rated low. This may reflect the traditional style of instruction, in which the instructor is the center of the learning experience, to which the students were accustomed.

Overall, students rated most course management system features as extremely important or very important. This is in agreement with Dixson (2010) who found that students reported a variety of activities in online courses as effective for increasing engagement. Students in the current study especially valued contact with the instructor as well as information about assignments, course materials, and grades. Similarly, Ausburn (2004) found that adult students ranked highest course management system features related to structure and content when asked to rank features according to their importance to the student as a distance learner. Young (2006) also found that students perceived effective communication and course facilitation as important in online teaching. The students in the current study least valued chat sessions and discussions, especially with other students. Ausburn (2004) also found that students ranked features related to communication low. Also, while in agreement about the importance of instructor presence as indicated by students in Dixson (2010), the importance of student presence was not indicated in the present study. This may have been influenced by the requirements of the course, and the importance of student interaction may have increased with more emphasis on active and collaborative learning as suggested by Kuh et al. (2007).

Implications for Practice

Students indicated that they valued all course management system features to some degree. But overall, students rated instructor feedback as most valuable, especially for their

performance, participation, and seeing relevance in the material. Instructors should be careful to provide students with thorough and timely feedback on their work so that students can more fully understand what they did well and what needs improvement prior to completing additional assignments. Students also valued information provided by the instructor, particularly lecture outlines and information about assignments, especially for their performance, participation, and seeing relevance in the material. Since students do not receive the face-to-face instruction that occurs in a traditional classroom, it is imperative that instructors help students understand the key points from materials they are assigned to read, listen to, or view and also to provide clear guidance about how students should complete assignments. Finally, while students valued various communication tools to increase their participation in the course, students rated email to and from the instructor as valuable for all areas of engagement. It is important that instructors establish preferred means of communication with students and respond promptly to students who seek assistance. Students may feel as if they are alone in taking the course and simply need reassurance that others, especially the instructor, are accessible, or they may need clarification regarding some component of the course.

Limitations and Future Directions

There are some limitations in the present study, and the ideas for future research noted below may address these limitations. First, there was no consideration of how much students actually used the various course management system features. For example, the online chat function was not required and thus was rarely, if ever, used by students or the instructor. Future studies could track usage using the tracking features of the course management system and consider the amount of tool usage in overall considerations of its importance for engagement. Second, students' abilities to use various forms of technology vary as some students come into a course with prior experiences using the system, or a similar system, or have advanced skills using technology as compared to other students. These students may

be more likely to use and see the value of the features. Future research may consider the skill levels of the students alongside their ratings of the features. Finally, course management systems are continually changing, and new features are often available to students. The features assessed in this study may be made obsolete as new features are introduced. Future research may probe deeper into the reasons why students value certain features of a course management system to more fully understand which learning strategies facilitated by the features, rather than the features themselves, students value to increase their engagement in their online courses. By doing so, instructors could adapt their practices to incorporate the most appropriate features in order for students to meet their learning outcomes. In addition, future research may consider various types of active learning strategies that may be incorporated into online courses and the role they play in increasing student engagement.

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Appendix

Questionnaire

Directions: Please place an "X" in the appropriate column to indicate the importance of each of the online course features listed in Sections I-IV for the stated activities or outcomes.

Section I: How important to you is each of the following features of myCourses for studying on a regular basis, keeping up with readings, and taking/reviewing notes?

Section II: How important to you is each of the following features of myCourses for making material relevant and interesting, helping you apply course material, and increasing your desire to learn material?

Section III: How important to you is each of the following features of myCourses for participation and interaction in the class: engaging in online conversations with instructor and other students, helping other students, and getting to know other students?

Section IV: How important to you is each of the following features of myCourses for performance in the class: getting a good grade and doing well on tests?

	Extremely Important	Very Important	Somewhat Important	Slightly Important	Not at All Important
Course announcements					
Syllabus					
Information about assignments					
Course materials such as handouts and lecture outlines					
Personal and contact information for instructor					
Direct links to web sites of materials used in course					
Online discussions with instructor					
Online discussions with other students					
Online chats with instructor					
Online chats with other students					
Email to and from the instructor					
Email to and from other students					
Access to grades					
Instructor feedback on assignments/assessments					

Section V: Demographic Information

Directions: Please place an "X" beside the response which best applies to you.

Student Demographics		
Gender	Male	
	Female	
Age	20-29	
	30-39	
	40-49	
	50-59	
	60 or above	
Enrollment status	Full-Time	
	Part-Time	
How many online courses have you taken prior to this semester?	<i>In the next column, please write in the number of online courses you have taken prior to this semester.</i>	
Course you are referring to with this questionnaire (mark only one)	Program Planning and Development	
	Community College Instructional Assessment	
	Community College Curriculum Improvement	
	Leadership Theory and Practice	
	History and Philosophy of the Community College	
	Community Development and Resources	
	Community College Teaching	
	Other (please list)	
Major	Master of Arts in Teaching	
	Master of Science in Workforce Education Leadership	
	PhD in Community College Leadership	
	Other (please list)	