

Online Courses: Student Preferences Survey.

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Abstract

As online and hybrid courses are increasingly used to deliver college courses and curriculum, an online survey was developed and implemented at the University of Baltimore to capture perceptions and attitudes towards online and collaborative learning experiences during the spring 2011 term. The majority of the respondents were employed women of multi-ethnic backgrounds who were currently participating in a hybrid or fully online course. The findings indicate that they highly valued the flexibility of the online format and the access to online assessment tools and an electronic portfolio of their graded work. In terms of collaborative learning relationships, respondents rated their interactions with their instructor more favorably than their peer interactions. Various challenges for online learning are presented and discussed.

KEY WORDS: Online learning; e-learning; student preferences survey; distance education; nontraditional educational programs in health administration; University of Baltimore; Health Systems Management

Introduction

Instruction is a key component of hybrid and online learning, and is pivotal to developing quality online education. Dewey (1938) argued many years ago that instruction occurs within a social and environmental context, and that *interaction* is a defining part of all learning. Interaction enables the learner to transform information into knowledge when learners interact actively with content and with co-learners i.e. fellow students, instructors, and experts (Wu, Chen, Zhang, & Amoroso, 2005). Learning communities or “distributed learning” refers to blended and online learning in which there is a mix of interactions among learners led by instructor over a period of time (Dede, 2006). Ravert and Evans’ (2007) investigation of preferences among university students suggest that as student progress through college, they prefer learning that is created through interactions and interdependence among learners.

Online technologies to enhance student learning depend on many factors including student engagement. The selection of various online technologies to best enhance student learning may be based on many factors including the learner’s preferences and experiences. Metrics for evaluating online courses consider both indicators of learning performance as well as student engagement. In a study of student engagement in online courses at three different universities, Robinson and Hullinger, H. (2008) used metrics of student engagement in online courses focusing on key engagement dimensions from the 2006 National Survey of Student Engagement (NSSE). Benchmarks used in their study included level of academic challenge, faculty–student interactions, student–faculty interactions, active and collaborative learning, enriching educational experience among others. Their research found that students view faculty feedback as the most important and frequent type of interaction between student and faculty and those students also acknowledged a learning benefit associated with working in groups. This is consistent with the important role of online instructors to direct and facilitate online learning that

create a “teaching presence” (Garrison, 2007). Hyo-Jeong and Bonk (2010) found that many instructors facilitate collaborative learning by including assignments for small groups, often in a mandatory participation structure, who are given a technology median such as a wiki or a discussion forum. Thus collaborative learning results in collaborative writing.

A focus on collaborative learning may need to consider the level of instruction. Ravert and Evans (2007) pilot investigation of preferences among university students suggest that a preference for constructivist learning versus absolute instruction is developmental in nature with lower-level students preferring absolute and valuing the interdependence of learners on each other as they move into upper-level classes.

While collaborative writing is in vogue at many colleges, the increasing availability of interactive video networking technologies may see the transformation of online collaborative experiences to include experiences such as a classroom case discussion. A preference for video demonstration in augmenting clinical skills was highlighted in a study of medical students as being a useful learning tool (Gormley et al. 2009). Harris et al. (2009) suggest that students entering medical school are anticipating an interactive, information-rich, individualized learning environment that might also trigger a need for curriculum reform.

Research has also suggested differences between nontraditional learners and traditional learners in e-learning environments (Miller and Mei-Yan 2003). The flexibility and convenience of access to online courses are widely perceived as benefits to online instruction (Bolliger and Wasilik 2009; Hill 2006). The “anywhere anytime” nature of online course delivery has particular appeal to nontraditional students who often bring a myriad of family concerns and workplace stress to the classroom. In a study directed specifically at the concerns of nontraditional learners participating in online courses, Miller and Mei-Yan (2003) found that group discussion and group projects as well as faculty engagement. In particular, timely, personalized responses from instructor to student were valued by online learners.

Some nontraditional programs are expanding the virtual classroom tools to make advising appointments using software such as elucidate (Runyon 2010) to aid the nontraditional student. It is not unusual for the college degree to be viewed more in terms of a workplace credential among nontraditional students. Artino (2007) noted that task value was a significant predictor of student performance and satisfaction in online learning and suggested that it be heightened by integrating coursework with “real world” issues. Thus, task value, the sense that the course material has immediate applicability and importance has been suggested as a key metric in student motivation and performance.

Methods

To help re-design professional courses for hybrid and online delivery, an online survey was administered to the current undergraduate and graduate students in the Health Systems Management program in the spring semester of 2011. The content included questions about students’ perceptions and experiences related to online learning. The questions were posted online using Ultimate Survey and activated. An invitation to participate in the survey was emailed to all of the students, both graduate and undergraduate on Tuesday, February 22, 2011. Participation was voluntary and the IP addresses were collected to spot check for multiple entries. The end date was March 14, 2011. A total of 53 students responded; 36 were undergraduate and 17 were graduate students. The 36 undergraduates comprised a 21% sample

of the total 174 undergraduates and the 17 graduates comprised a 19% sample of the total 89 graduates.

To assess possible response bias, an analysis of demographics between the respondents and non-respondents was performed. Respondents' demographic characteristics were similar to the characteristics of the overall Health Systems Management program. University of Baltimore's Health Systems Management program had enrolled 263 students in the spring, 2011. Of the total 263 current students enrolled in the spring 2011, 80% are female (209 females and 54 males.) This majority was reflected in the 92% of women respondents. The average age of the Health Systems Management students is 34.5 years and the majority of the respondents were over 30 years of age. Similar to all students in the program, the overwhelming majority (92%) of respondents were employed.

The respondents described their race or ethnicity with 47% of respondents describing themselves as "Black," 21% of respondents describing themselves as white, and just under a third, 32%, describing themselves as "American Indian," "Asian," "Hispanic," "Other," or choosing not to answer.

Survey Results

When asked to describe the type of courses that they were currently taking, respondents reported 49.1% traditional classroom setting, 37.7% web enhanced (a face to face that includes a web component), 13.1% hybrid (classroom time is shorted to offset time spent online), and 60.4% fully online. Students were able to select more than one course type.

The online courses were facilitated through an educational management system, WebTycho, such that all students reported having access to general courseware. Sixty percent had used discussion boards and 36% had used prerecorded video and 30% had used chat rooms or chat boxes. Sixteen percent had used interactive video and 10% had used webinars. Telephone conferencing (6%), social media (4%), and prerecorded audio (8%) were used less often with less than 10% reporting have experienced this technology type. Three respondents did not select to answer this question or had not used any of these tools.

Perceptions and Attitudes towards Online Learning

Questions on perceptions and attitudes towards online learning were grouped into three sections: Perceived IT ability, Attitudes towards online learning, and Perceived usefulness of different e-learning tools.

The respondents' perceived IT ability was gauged with three Likert scale questions with a selected score 1 being "strongly agree" and a score of 4 being "strongly disagree." On access to a computer, 99% of the respondents strongly agreed or agreed that most of the time they had access to a computer with only one respondent replying with disagree or strongly disagree. Respondents, by and large, reported confidence in browsing the Internet with 92% strongly agreeing or agreeing. Confidence was also high using media software with 86% strongly agreeing or agreeing to the statement "I feel confident using media software" (Table 1).

Table 1. Perceived IT ability and attitudes towards online learning

	n	Average	%			
			Strongly Agree	Agree	Disagree	Strongly Disagree
Perceived IT ability						
Overall I have access to a computer most of the time.	11	1.2	84%	14%	0%	2%
I am confident browsing the internet	51	1.3	82%	10%	4%	4%
I am confident using media software	51	1.6	57%	29%	10%	4%
I find I need some technical assistance in using online course tools.	51	2.8	18%	24%	20%	39%
Attitudes toward online learning						
A fully online course is useful in my gaining knowledge.	52	1.7	56%	29%	10%	6%
E-learning is helpful for assessment (aka standardized quizzes) and access to my portfolio of graded work.	52	1.4	67%	23%	10%	0%
Fully online courses leave me feeling isolated	51	3.1	18%	6%	29%	47%
A benefit to online learning is the possibility for international collaborations.	52	1.6	60%	25%	15%	0%
A benefit to online learning is flexibility.	50	1.3	76%	18%	4%	2%
E-learning enhances my interactions with peers and instructors.	51	2.2	35%	25%	22%	18%

While confidence was high in using the Internet and media software, there were some respondents (42%) who responded in agreement (strongly agree or agree) to the statement “I find I need some technical assistance in using online course tools.”

In addition to reporting confidence, respondents reported that online course were useful for gaining knowledge (85% agreeing or agreeing strongly), helpful for access to their portfolio of graded work (90%), possibly a benefit for international collaborations (85%). The strongest agreement was that online courses allowed for additional flexibility (94%). There was disagreement reported from respondents to the statement that online course were isolating. However, agreement was weaker (61%) for the statement “e-learning enhances my interaction with peers and instructors.”

In terms of their perceived usefulness of various online technologies and tools, students ranked the following tools beginning with the most useful and the average rating shown in Table 2 with 1 indicating the most useful score and 4 indicating the least useful score.

Table 2. Perceived usefulness of different e-learning tools

I find the following useful:	n	Average	%			
			Very Useful 1	2	3	Not Useful 4
General courseware (aka WebTycho) to see the syllabus, assignments, course material	52	1.1	92%	8%	0%	0%
Online assessment tools (aka online quizzes) that are graded	52	1.4	73%	17%	8%	2%
File sharing and collaborative document sharing i.e. sharing presentation slides with peers	49	1.6	59%	27%	8%	6%
Discussion boards	51	1.7	61%	14%	16%	10%
Pre-recorded video	51	1.9	51%	14%	27%	8%
Interactive Video (the professor can see/hear you and you can see/hear him/her)	50	2	40%	30%	16%	14%
Webinars	48	2.1	31%	38%	23%	8%
Student blogs (part of a website maintained by an individual with entries and readers can follow and post comments.)	50	2.1	30%	38%	24%	8%
Virtual study groups to collaborate on group projects	51	2.3	31%	25%	24%	20%
Wikis (a website that allows the creation and editing of any number of interlinked web pages.)	47	2.4	28%	21%	32%	19%
Telephone conferencing	49	2.5	27%	18%	37%	18%

Respondents perceived general courseware and online assessment as very useful. Document sharing, discussion boards, and pre-recorded video were also perceived as rather useful. Interactive video, webinars, student blogs, virtual study groups, wikis, and teleconferencing were not rated as highly in usefulness.

Overall, respondents appeared to have positive feelings about their access to computer and confidence using online tools. Online learning was valued for its flexibility, assessment role, and as a learning tool. However, there was less agreement on the value of the interaction between instructors and peers in online courses which is the key focus on the following section of questions on collaborative learning.

Collaborative Learning

The collaborative learning section was aimed at determining, first, the degree of interaction between students and instructors and, second, the degree of interaction among students themselves with each other.

The first section asked about agreement concerning the degree of interaction with the faculty. There was generally agreement that faculty interacted with students: sharing ideas from the reading, discussing assignments or grades, and giving prompt feedback. (Table 3)

The second section used the same agreement score but addressed questions about student-to-student or peer-to-peer learning. Student-to-student interaction scores were lower indicating less interaction among students in the class than among individual students with faculty. While some respondents suggested that students participated in discussions, commented on their

discussion posts or blogs and sent an occasional email, there was less agreement that a relationship developed or that mentoring occurred from one student to another. (Table 3)

Table 3 Collaborative learning

	n	Average	%			
			Strongly Agree	Agree	Disagree	Strongly Disagree
Instructor to student						
Faculty discussed assignments or grades.	53	1.2	75%	25%	0%	0%
Faculty gave prompt feedback on assignments.	53	1.3	70%	26%	4%	0%
Faculty shared ideas from reading or class notes.	53	1.4	72%	23%	2%	4%
Student to student						
I participated in a discussion with another student.	52	1.5	69%	21%	2%	8%
I commented on another student's discussion post or blog or added to a wiki.	51	1.8	61%	18%	4%	18%
I worked on a project with another student (s) using group email.	52	1.8	52%	25%	13%	10%
I shared written documents with other students in the class.	51	1.8	51%	29%	6%	14%
I took part in a group presentation.	52	1.9	50%	23%	15%	12%
I worked on a project with another student(s) using collaborative file sharing.	52	2	46%	27%	8%	19%
I shared an individual presentation.	51	2.1	47%	22%	10%	22%
I provided mentoring to or sought assistance from another student in the class	51	2.2	41%	22%	16%	22%
A peer to peer relationship developed from an online class.	51	2.2	41%	20%	18%	22%

Time Online

Respondents were asked about how much time in hours they spent online for their class work in a given day. The average reported among of time was 4.5 hours and the median was 4 hours. A respondent reported spending 20 hours online in a given day but removing that response as an outlier the average is 4.26 hours.

Respondents also reported spending some of their leisure time in online activities. The average amount of leisure time spent online was 3.11 hours with a median of 2 hours. Again, there was a respondent that reported 20 hours online in leisure time. Removing that “20 hours” response from the calculation brings the average hours to 2.78 hours.

Websites that were popular with respondents included Facebook with 63% of respondents visiting this site, news-related sites (62%) and Youtube (51%). Websites that assisted in the search for job opportunities (45%) or for scholarships (42%) were also reported as useful to respondents. Less popular were twitter (11%), LinkedIn (19%), iTunes (23%), TED (6%), other (15%), and online gaming sites (6%). In a given day, the average respondent spends a fairly significant amount of time online each day.

Comments

Many respondents did send in open comments with 31 describing ways that online courses enhanced their learning experiences, with 29 describing some limitations and 14 submitting general comments that were by and large reflecting feelings about particular courses.

Some highlighted the convenience:

I love on line learning. As a full time working adult with a family who drives back and forth from MD to PA every day, it's a necessity. I love UB, so I wanted to continue my education here, on line learning helps me to be flexible.

Others mentioned the challenge of group work as a limitation

I do not like group and team effort assignments with online courses. The point of choosing an online course over a lecture course is the appeal that you can make your own time for it. It's very frustrating that I work 40 hours a week, have a family, yet still need to make time with my partners who are all full time students with no family responsibilities.

Another view suggested that what is commonly viewed as a limitation, the lack of face-to-face interaction could be viewed as a benefit in terms of group productivity

online classes are actually enhanced by the lack of face to face because students HAVE to communicate through the email system or phone, which improves productivity in the forced groups that every instructor (online or otherwise) insist on making us poor students participate in...

Discussion

The context of this study is a nontraditional educational program for healthcare managers. Coursework is offered at both the undergraduate and graduate levels in a mix of online and hybrid formats as well as in face-to-face classes that meet on Saturdays to be convenient for professionals working in the healthcare field. Literature and previous studies suggest that nontraditional students value the flexibility of online classes, appreciate prompt feedback from faculty, and valued group projects and discussion (Miller and Mei-Yan 2003). These survey results were largely in keeping with those views as respondents did highly value flexibility, strongly agreed that faculty interactions included prompt feedback, and discussion boards were perceived as a useful tool. Yet, there was some disagreement about the value of small group projects for fully online courses, and the lack of face-to-face interaction was viewed as a limitation by many respondents. Still most respondents did not experience feelings of isolation.

Respondents to this online survey indicated a fairly strong computer access, Internet browsing confidence, and media software skills. This was echoed in many of the earlier studies of online learners as laptops, iPads, and smart phones becoming more common place on college campuses (Gormley et al. 2009; Harris et al. 2009).

Respondents perceived the most useful online tools to include general courseware, discussion boards, and pre-recorded video. This usefulness of video parallels preferences reported in studies of medical students' perceptions of useful tools. Similarly, required participation in discussion boards was a recommended method for facilitating collaboration projects in a study examining the roles of blended learning approaches (Hyo-Jeong and Bonk 2010). Wikis, however, were not rated as highly useful by the respondents to our survey. It is worth noting that while respondents rate telephone conferencing and wikis as less useful tools, it may reflect limited comfort level with those tools due in part to lack of experience with them as

they may yet prove helpful in counterbalancing some of the limitations in terms of student-to-student interactions.

Views on collaborative learning reflected stronger interaction between students to instructor than student to student. This finding hinted at a common concern expressed in the literature that interaction is limited in learning environments where students never or seldom meet face to face (Bollinger and Wasilik 2009).

Limitations in this study included a limited response rate of 20%. The student body is mostly female, 79%, and females were overrepresented in the respondents, 92%. This survey could be replicated with a larger sample or augmented with techniques to encourage a higher response rate or it could be reintroduced every few years as a barometer of changing views towards online learning. It is worth noting that benchmarking perceptions of ability and engagement do not necessarily provide a blueprint for improving those measures.

Dewey (1938) argued that education occurs within a social and environmental context, and that *interaction* is a defining part of all learning. Interaction enables the learner to transform information into knowledge when learners interact actively with content and with co-learners i.e. fellow students, instructors, and experts (Wu, Chen, Zhang, & Amoroso, 2005).

The quality and quantity of learner-instructor interaction depends on the instructional design and selection of learning activities. Instructors need to plan learning activities that maximize the impact of interactions with students and provide alternative forms of interaction when time constraints become excessive (Anderson, 2003). Thus, instructors are challenged to build in more learner interaction with peers for online and blended courses.

Blended and online learning require that faculty must reassess their roles as well as those of students. Students need to accept more responsibility for managing their learning while instructors become more facilitative in teaching (Dzuiban, Hartmann, & Moskal, 2004). As student-teacher interaction is highly valued by students, instructors need to consider ways to integrate online learning activities that promote interactions and enhance learning.

About the Authors

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