

HAVE WE ASKED THEM YET?

Graduate Student Preferences for Web-Enhanced Learning

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This article is an interpretation of a mixed-method study to determine graduate students' preferences for and perspectives of web-enhanced and online learning as a part of their university degree programs. A small group of graduate students completed a quantitative survey that also contained some open-ended, qualitative questions. The survey was administered to 3 groups of graduate students over a 2-year period. Although the participants for this study were small in number, a plausible list of implications can be derived in terms of what will attract and maintain the motivation of graduate students at universities.

BACKGROUND OF THE PROBLEM

Online learning and its web-enhanced or hybrid variations have been increasing across the United States at rates that far surpass the growth of college student numbers in general (Allen & Seaman, 2008). Allen and Seaman reported that more than 20% of all college students in the United States took at least one online course during the fall of 2007. Such learning may include blended or hybrid classes whereby the class sometimes meets face to face, as well as courses that are wholly online (Allen & Seaman; Singh & Pan, 2004). Although ris-

ing fuel costs and the economic downfalls of the last few years are predictable factors in the recent increases, numbers of online learners are expected to increase for other reasons as well. Kim and Bonk (2006) asserted, "online education is becoming an important long-term strategy for many post-secondary institutions" (para. 6).

Some of the most desirable aspects of online learning include time and distance convenience, quicker feedback, more learner control, being able to review learning materials continuously, more instructor-to-student contact, and accessibility (Singh & Pan, 2004). An additional benefit is more interaction between

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The Quarterly Review of Distance Education, Volume 12(2), 2011, pp. 125-134
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ISSN 1528-3518
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students than in a traditional face-to-face classroom for online courses that provide both “synchronous and asynchronous” (p. 306) modes of learner communication.

An especially high-use group of online learners are graduate students who have families, full-time jobs, erratic schedules, or other commitments that necessitate the convenience of flexible scheduling that online learning offers (Li & Irby, 2008). Graduate students also tend to be more particular about the degrees they earn and about where they earn them. Online learning offers them more options when they are not able to travel great distances or relocate to attend the programs or schools of their choice.

What has not kept pace with the extent of online and web-enhanced course offerings is the amount of research conducted on what is effective or desirable from the perspective of the learners—two possibly conflicting ideals (Tsai, 2009). In light of current economic conditions coupled with increasing advances in technology, tension exists between immediately offering students the online choices they desire and carefully planning for them the optimal learning experiences they value. In some campus environments, enrollment management goals are at odds with academic integrity principles and beliefs; quantity is expected before quality can be implemented. It would strengthen university programs and aid in campus decision making to identify instructional strategies that are beneficial and relevant, as well as what aspects of online and web-enhanced learning are drawing students to it.

Although this information would provide insight regarding all levels of college students, this study was concerned with graduate students. Due to the unique needs they have in relation to constraints outside of the classroom and the exponential growth in online graduate course enrollment, graduate student perspectives may significantly differ from undergraduate perspectives and should be analyzed separately.

Purpose

The purpose of this study was to determine graduate students’ preferences for and perspectives of web-enhanced learning. Specific research questions were, What are the reasons that graduate students enroll in web-enhanced college courses? What are the aspects of web-enhanced learning that graduate students identify as the most desirable? What are the instructional strategies that graduate students identify as the most beneficial?

Key Terms

- *Online learning*: “Learning that takes place partially or entirely over the Internet” (U.S. Department of Education, 2009, p. 9).
- *Totally online learning*: Courses that are designed with no face-to-face meeting times; all activities and procedures of the course take place online.
- *Web-enhanced, blended, or hybrid learning*: Courses that are scheduled with limited face-to-face meeting times with the remainder of the course activities and procedures taking place online.

REVIEW OF LITERATURE

Online Versus Face-to-Face Learning

In spite of the fact that over 30% of university faculty have developed and taught at least one online course, over 70% of faculty expressed beliefs that online learning was inferior to face-to-face learning opportunities (Seaman, 2009). Although predictions that the quality of online instruction would increase over the past decade have come true (Kim & Bonk, 2009), professors are still reluctant to acknowledge online courses as providing quality or optimal learning experiences (Seaman).

The U.S. Department of Education (2009) conducted a meta-analysis of 99 experimental and quasi-experimental research studies (screened from a sample of 1,132 studies

located on online learning) on the effectiveness of online learning outcomes published between 1996-2008. At a level of significance, online learning (whether web-enhanced or totally online) for older learners (beyond K-12) was determined to result in higher student performance than face-to-face instruction with web-enhanced learning showing higher effect sizes than totally online learning. This was a change from previous meta-analyses that found similar outcomes no matter the venue. These results were verified for K-12, undergraduate, and graduates, as well as professionals across several disciplines and professions.

An additional area of the more recent analysis was a comparison of learning outcomes from totally online courses with those from web-enhanced courses. Although a few studies favored either, no overall significant differences were found. The U. S. Department of Education (2009) concluded, "the relative efficacy of blended and purely online learning approaches depends on the instructional elements of the two conditions" (p. 38). One such instructional element was the amount of time-on-task required of learners. Other online practices that increased learning outcomes were fostering reflection and providing control for learners over their interactions with each other and media components. Quizzes, video, and guidance for group learning such as questions did not reveal increases in learning.

Tsai (2009) conducted a phenomenological study of 83 undergraduate college students from six universities in Taiwan. Tsai found that students held the perception that the learning they derived through online coursework was of higher quality than learning attained in face-to-face classroom settings. Additionally, their "conceptions of web-based learning were often more sophisticated than those of learning in general" (sec. 4, para. 2) and that they described online learning as helping them with understanding and "seeing in a new way" (sec. 4, para. 3). Tsai further posited that his findings may indicate a distinction students are making between school learning, which they do not see as connected to real life and learning

in online contexts that they view as more applicable.

Faculty Engagement

Morris and Finnegan (2008-09) found that faculty presence and participation online were important to online learners. Specifically, "faculty involvement and feedback" (p. 59) were factors in successful course completion for learners, as well as "procedural clarity" (p. 59) provided by instructors. Those students who were less successful needed more assistance with course layout, course expectations, assignments, and locations of course content. Morris and Finnegan further posited that professors' fulfillment of social and managerial roles may be a more beneficial service for students than feedback on their coursework. Faculty should provide a comprehensive orientation at the beginning of a course, and then maintain consistent contact with their online learners for the first weeks, encouraging them to build their self-reliance and group-reliance.

As courses with online components, in part or whole, are representing ever-increasing percentages of students' overall college coursework, feelings of stress and isolation from lack of attachment to the campus community are likewise increasing. A comprehensive plan for recruiting, advising, and supporting online learners is needed to reach them and make them feel connected and part of the community network. For those students who are engaging in distance learning without traveling to a campus for any coursework, the role of their academic advisors is changing as the advisors may be their only on-campus contact (Morris & Miller, 2007). In addition to their previous occasional role of suggesting courses to fit a plan of study, advisors are filling or expected to fill such roles as technology support, emotional support, and tour guide to student support services such as financial aid, registration, book buying, grade appeals, and transfer credits.

Morris and Miller (2007) identified timeliness of responses to advisees' questions or problems as important, as well as the importance of having technological capabilities that are equivalent to what students are used to in other industries (such as online shopping). Advising and support that meets the needs of online learners is a crucial piece of student recruitment and retention (Boettcher, 2007). This may involve offering a 24-hour help desk for technological and academic support. Cain and Lockee (2002) also recommended that library support, tutoring, mentoring, and career advising should be included in support services for distance learners.

Student Learning Styles and Online Success

Findings of three studies completed to determine whether the learning environment affected the outcome of student learning based on their learning style indicate that online instruction can be just as effective as face-to-face instruction but the online course should offer a number of interactive components.

The results of the McCann (2006) study indicated that online learning can be just as effective for all types of students, regardless of their particular style of learning. While the findings do not imply that an individual's learning style has no effect on their learning potential in a classroom or online environment, it does indicate that a highly interactive environment should increase the chances of a successful outcome.

Aragon, Johnson, and Shaik (2002) compared the relationship between learning style preferences and learner success in an online graduate-level course and the same course offered in a face-to-face format. The results indicated that motivation was the only variable found that influenced course performance. Additionally, "correlations between learning style and course performance were not found for the online students" (p. 22).

The Neuhauser (2002) study suggested that exercises, activities, animations, and video

tend to engage the student in the learning process more than static print and graphic media, but there were no significant differences found between learning style and instructional method.

Best Practices for Online Learners

In addition to increased advising and intensified faculty guidance, Morris and Finnegan (2008) identified other recommended best practices to ensure successful completion of online courses. The basic rules of good web design should be followed to reduce confusion. Flexibility in online time requirements (allowing learners to be online at asynchronous times) is important for learners who have hectic or erratic work and home schedules. Online discussions are also important and may play a hefty factor in retaining students.

In considering the characteristics of online learners, those who spent more time-on-task and had higher levels of self-reliance and persistence were those who were more likely to successfully complete an online course. Additionally, successful completers tended to view problems as "something to overcome" (p. 60), while withdrawers tended to view problems as a "rationale for leaving a course" (p. 60).

METHODOLOGY

The purpose of this mixed method study was to identify preferences that graduate students have for web-enhanced learning as a part of their university degree programs. A quantitative survey was used that also contained some open-ended, qualitative questions. The survey was administered to three groups of graduate students over a 2-year period.

Participants

The sample group was comprised of 26 graduate students at a midsized 4-year university in the United States. The genders of the sample group were fairly evenly distributed.

All of the students were over the age of 21 and enrolled in graduate-level programs that primarily offered web-enhanced courses. These students were purposively selected as learners who had recently completed three or more web-enhanced graduate courses. The majority of the sample group had completed at least eight web-enhanced courses and were members of a cohort program that followed a set plan of study over a 2-year period of time. Therefore, the people surveyed were uniquely experienced and appropriate participants to offer their perspectives of strategies that work well or do not work well for adult learners in web-enhanced coursework.

Data Collection and Analysis

This study utilized an online survey containing 11 multiple choice or Likert-type questions and five open-ended questions. Sixteen graduate students completed the survey soon after the conclusion of the spring 2009 academic semester. This survey was launched through the secure online program known as Survey Monkey. Ten additional graduate students completed the survey in paper form at the conclusion of the summer 2010 academic term.

A total of 26 surveys were completed and analyzed. Quantitative survey data were analyzed using frequencies calculated on an Excel spreadsheet and converted to table form. Open-ended qualitative questions were analyzed using open and axial coding whereby repetitions in terminology were identified and categorized into three salient themes: *most*

positive aspects, most congruent instructional strategies, and least desirable aspects or strategies.

QUANTITATIVE INDICATIONS

The quantitative portion of the survey asked participants to identify the main reasons that they enrolled in web-enhanced college courses, as well as what the most desirable aspects of enrolling in such coursework were for them. The survey further asked them their preferred course design for learning. These dimensions are discussed in the following paragraphs.

Reasons for Enrolling at the Chosen University

Two of the survey questions pertained to why the participants chose to enroll in coursework at their chosen university and whether they would have enrolled there without web-enhanced offerings. The responses revealed that web-enhanced options were the overriding factor. The reputation of the university was a secondary reason for choosing the school and took precedence over desirability of program topics, tuition costs, and ease of the application process and requirements (see Table 1).

Ten of the 26 participants further indicated that, if web-enhanced courses were not offered, they likely would not have chosen to enroll in classes at that particular university. However, 13 indicated that they probably would have still enrolled in some classes there.

TABLE 1
Reasons for Choice of University

<i>Reasons for Pursuing Graduate Degree at the Chosen University</i>	<i>Number of Participants (n = 26)</i>	<i>Percentage of Participants</i>
Web-enhanced course offerings	15	57.7
Reputation of the university	9	34.6
Desirability of the topics the program would address	6	23.1

Most Desirable Aspects of Web-Enhanced Course Designs

Out of several choices, three of the four aspects of web-enhanced coursework that were ranked the highest in terms of desirability were related to schedules, time, and cost—similar to the factors identified in the literature that are related to convenience or necessity. These four aspects, in order of prevalence, were flexible schedules, less time, less cost, and being able to think about responses before submitting them online (see Table 2).

The fourth highest ranked aspect was having the opportunity to craft responses to discussion boards before posting them. This is an advantage to some people over face-to-face group discussions that are far more spontaneous and sometimes produce a higher sense of vulnerability or risk. The learners who completed the survey were involved in coursework that allowed them to get online when it was convenient for them within a particular perimeter of time. This would not necessarily be true at all colleges. One of the instructors under

whom some of the study participants were enrolled had attempted a specific time that all class members would be online simultaneously. That attempt failed and the course design was aborted partway through the term. That experience may have influenced why this aspect was ranked highly.

Web-Enhanced Preferred Over Online Learning

Eighteen participants preferred web-enhanced coursework over totally online coursework and over face-to-face courses that contained no online component. However, when asked about the importance of having the opportunity to meet class members in person, the level of importance was high. An interpretation of these seemingly conflicting results would be that graduate students do want in-person interactions with their class members, but that having only a limited number of such interactions is enough without needing interactions every week of the semester.

TABLE 2
Most Desirable Aspects

<i>Most Desirable Aspects of Web-Enhanced Coursework</i>	<i>Number of Participants (n = 26)</i>	<i>Percentage of Participants</i>
Flexible schedule for getting online	23	88.5
Less time involved than in traveling to campus	18	69.3
Less cost than in traveling to campus	12	46.2
Being able to craft responses before posting them online	10	38.5

TABLE 3
Importance of Face-to-Face Meetings

<i>Importance of Meeting Class Members Face to Face</i>	<i>Number of Participants (n = 26)</i>	<i>Percentage of Participants</i>
No opinion	1	3.8
Not at all important	0	0
Somewhat important	9	34.6
Important	7	26.9
Very important	9	34.6

Qualitative Themes

One of the main research questions for this study was, What are the aspects of web-enhanced learning that graduate students identify as the most desirable? This question was addressed through both the quantitative and qualitative portions of the survey. The qualitative results provided insights into the most positive aspects of web-enhanced learning, preferences for instruction that was congruent with participants' learning styles, and identification of aspects they viewed as undesirable.

Most Positive Aspects of Web-enhanced Learning

One of the open-ended questions was specifically worded, What are the main benefits of the on-campus face-to-face meetings? Without intentionality in its design, this question elicited responses that were a comparison to a totally online course. For example, one response stated, "knowing who my instructors are" as if, without the meetings, this would not have been possible. There were three salient themes that emerged in response to perceived benefits of web-enhanced learning. By far, the main benefits identified were the formation of relationships with classmates and instructors. In descending order of prevalence, the other themes were deeper understanding and learning from others, and clarification of procedures. They are each presented in the following paragraphs.

Relationships

Many of the open-ended responses to the question of benefits of web-enhanced learning included the words "getting to know people" and "meeting people." A few commented on the increased comfort and trust levels that were developed which, in turn, enhanced the comfort level of sharing thoughts and perspectives online.

The trust that was developed throughout the program allowed multiple opinions to be expressed without fear of ridicule.

Meeting people face to face in person made the on-line aspect more manageable and meaningful.

I like to see and interact with the people with whom I am sharing opinions and information. It is easier to communicate more effectively and more comfortable than feeling like I am talking to some faceless responder on[line].

Knowing who my instructors are and my classmates. Otherwise there probably wouldn't be as much meaning as to what others had to say.

I forged a bond with my cohort members that will remain for a long time.

Deeper Understanding and Learning From Others

The second theme that emerged pertaining to benefits of web-enhanced learning related to opportunities to dig further into the material that was provided or read as part of the online mechanisms of the course. Intertwined with deeper understanding were comments about the learning that came from interacting with others.

It gave me a chance to discuss topics related to the course with others taking the classes face to face.

The conversations with other cohort members were invaluable.

These meetings were not only beneficial for familiarizing me with the info, they were enjoyable and allowed another way to view my current work [situation].

Hearing stories of personal experience, especially struggles, and getting a chance to work through them or hear collective wisdom on the subject, role plays, situational "what ifs."

It is good to meet people who are your peers going through the same thing. Also, it is good to hear different ways to see the same issues.

I now have a community of people going into Admin[istration] and can interact with them in the future.

So much of our deepest learning came from plumbing the wisdom of other people's experiences on the job.

Clarification of Procedures

Surprisingly, a handful of responses indicated that online explanations of what was expected or directions for completing assignments were inadequate. Therefore, the face-to-face meetings provided opportunities to ask questions and clarify the procedures for tasks and assignments. This is perhaps indicative of the unfamiliarity with online learning and usage of technology on the part of the instructors that were identified in the quantitative portions of the survey. Some of the specific responses were:

Being able to ask questions in person and have time to understand the answers.

Being able to get clarifications on a number of aspects of the course from the instructor immediately.

[Gaining] deeper understanding of the instructor's intent and student expectations.

Most Congruent Instructional Strategies for Web-enhanced Learning

This study also sought to determine instructional strategies that were the most beneficial in terms of online or web-enhanced learning. A question specifically asked about instructor actions that were congruent with the student's learning style and needs. There were a large number of responses, yet no prevalent themes, indicating perhaps the full range of learning styles and preferences among graduate students (and therefore the difficulty in meeting all of their needs, especially through an online venue).

The most commonly stated (yet not prevalent) strategies included physically interactive

exercises, verbally interactive exercises, detailed syllabi, instructor feedback, limited time required online, variations in assignments, handouts with visuals, ample information provided, and flexibility especially when there were technological issues.

Slightly different than strategies, the most commonly stated desirable types of activities or assignments were case studies, student presentations, discussions of real-world problems, and small group work.

Least Desirable Aspects or Strategies

Most of the undesirable aspects identified had to do with schedule-related issues. If a course only met a small handful of times, then each time was weighted heavily in terms of absences. Some instructors were more lenient with absences than others. The times that the face-to-face meetings were scheduled were not always convenient. Additionally, some people were driving long distances to attend these face-to-face meetings, and they felt as if the time and effort were not worth it if the meetings were not well-planned or covered material that seemed irrelevant. One learner was conflicted between the pluses and minuses of web-enhanced learning. A few supporting statements were,

Time [required was a challenge] with working fulltime and being in grad school.

The potential for a time conflict is always there with a limited number of meetings.

I go back and forth. It is more convenient but it's very impersonal ... almost lonely... to not have significant in-class connections.

Some classes were not needed. [We] could have learned [the same] in class online.

Sometimes it felt like what we experienced could have been taught in a text-based way. [We] just covered what we [had] already read.

Other undesirable aspects were related to instruction or instructor-related issues. Some

of the participants stated that they wished there were more (or even any) PowerPoint presentations, live video streaming options, and prerecorded videos segments. This indicates the probability that learners were often more advanced technologically than the instructors who are offering their online coursework. Some of the following comments describe the frustration that resulted.

Not all instructors were 100% committed to the web-enhanced design.

If the instructor is going to offer web-enhanced instruction, please be sure they are committed to using the technology effectively.

You could tell which professors were comfortable using the technology and which ones were forced into it. Those that are forced don't use it well.

It was odd carrying a feeling of knowing how to structure the course in a better fashion than some of the professors.

CONCLUSION

In response to the research question, What are graduate students' preferences for and perspectives of web-enhanced learning?, the answers that emerged largely confirmed previous studies and theories found in the literature. The availability of web-enhanced courses was one of the most important draws for graduate students to attend their chosen university; however, the university's reputation and specific programs were also important and played into students' decision making. The most desirable aspects of web-enhanced learning that were also confirmed in the literature were flexibility in schedules, less time and less cost than in traveling to campus. A fourth desirable aspect was the feature of being able to think about responses before posting them online.

In terms of comparing face-to-face instruction with online or web-enhanced learning, one finding was the determination that occasional face-to-face meetings were important,

but were not important enough to necessitate meeting every week. The main themes that emerged for the benefits of occasional face-to-face meetings were: building relationships with others, deeper understanding that was fostered from peers, and clarification of procedures. There were many instructional strategies that were congruent with students' learning styles, but none that were more prevalent than others. The least desirable aspects of web-enhanced learning that were identified pertained to the strain of the time commitment and lack of instructor technological savvy.

Recommendations for Further Research

This was a small study that would be substantiated with higher numbers of participants. All of the participants in this study were enrolled in the same university. It is recommended that similar studies be administered at multiple campuses, therefore producing more insightful results and distancing the data from contextually specific influences.

An important area to investigate in relation to online and web-enhanced learning is the discrepancy between learners' preferences for learning and the ways they learn best. In other words, this study and the literature reveal that graduate students are not choosing online learning because they learn more or better that way, but that such courses provide conveniences that face-to-face courses do not. Although the 2009 meta-analysis conducted by the U.S. Department of Education described in the review of literature revealed that web-enhanced learning does show a higher level of learning outcomes than online or face-to-face learning, more research is needed to substantiate this.

Implications for Web-Enhanced Instruction

Although the participants for this study were small in number, a plausible list of implications can be derived in terms of what will attract and maintain the motivation of graduate

students at universities. It is anticipated that further similar studies would substantiate these maxims.

- Web-enhanced course offerings influence graduate students' choices to attend a particular university.
- Web-enhanced courses are generally more desirable than totally online courses when the face-to-face meetings are well planned and viewed as worth the drive by students.
- Web-enhanced courses are generally more desirable and beneficial than totally online courses when the face-to-face meetings offer ways to build relationships, deepen learning, and provide new learning.
- Web-enhanced courses are more desirable when they allow for flexible times to be online and make allowances for responses to be precrafted before being posted online.
- Web-enhanced courses are more desirable and beneficial if they offer a range of instructional materials and strategies.
- Web-enhanced courses should be taught by instructors who can effectively use the technology required to administer them.
- Web-enhanced courses should provide online instructions that are specific and clearly written.

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