

A little knowledge goes a long way: Student expectation and satisfaction with hybrid learning

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ABSTRACT

The research in this study answers the following questions: (1) What are students' preconceived and informed expectations regarding hybrid learning? (2) How satisfied are students with the hybrid course? (3) What factors are related to satisfaction with this hybrid course? Secondary research was conducted and primary data was collected in the form of survey responses from 44 students that were enrolled in an upper level marketing course that was modified and transitioned into a hybrid learning format. Students were given three surveys; the first was a pre-course survey that focused on "preconceived expectations" and was given before the students were made aware of the hybrid delivery format, the second focused on "informed expectations" and was given after students were informed about the hybrid format for the course and had reviewed the syllabus, the third survey was given at the end of the course and measured perceived performance. T-tests were run to test for significant differences between preconceived and informed expectations; the results showed significant difference for 11 expectation items. Twenty-one expectation items were found to have significant correlation with satisfaction.

Keywords: online learning, expectations, hybrid, blended, student satisfaction

BACKGROUND

Providing online courses is becoming an increasingly popular trend in higher education today. Some authors even claim that the “future of all higher education is online” (Geteducated.com). Since the 1990’s, a number of colleges and universities have modified traditional face-to-face classroom instruction to include more of an online format. Among the advantages for promoting online educational options are increased flexibility, elimination of geographical barriers, improved convenience, and effectiveness for individualized and collaborative learning (Wu, Tennyson, and Hsia 2010). Data suggests that there has been a steady rise in the number of college students enrolling in online courses - over 5.6 million students during the fall term of 2009 (Allen and Seaman 2010). Online course delivery covers a range of options from web-facilitated courses to hybrid courses to fully online courses. The primary difference between these options is the percent of course content that is delivered online (Allen and Seaman 2010). Hybrid courses, also referred to as “web-enhanced/assisted or blended,” are typically defined as a course that combines elements of face-to-face instruction with elements of distance learning. There is no required formula for reduction of class times or use of technologies within a blended course. It is up to the discretion of the teacher and the nature of the course content (e.g. computer science, biology, english, marketing).

Specifically in the area of blended or hybrid learning, the impetus is toward “perfecting the blend;” that is, developing the optimal mix of in class and online experiences and teaching techniques while enhancing delivery methods for this innovative technique (Sloan Blended Learning Conference 2012). One way to measure the effectiveness of blended learning is through student satisfaction. While studies support the contention that students learn effectively in online courses, results showing satisfaction with online education have varied. Volumes have been written on student satisfaction within various learning platforms, e.g., 1) a pure online format (Cobb 2011; Sinclaire 2011; Beqiri, Chase, and Bishka 2010; Jackson, Jones, and Rodriguez 2010; O’Leary and Quinlan 2007; Dennen, Darabi, and Smith 2007; Thurmond, Wambach, Connors, and Frey 2002; Arbaugh 2001); 2) hybrid or blended format (Banerjee 2011; Wu, Tennyson, and Hsia 2010); and 3) a comparison between different learning environments: hybrid and fully online (Nowell 2011; Lim, Kim, Chen, and Ryder 2008; El Mansour and Mupinga 2007; Vamosi, Pierce, and Slotkin 2004). While research to date has shed light on a number of important issues related to student satisfaction with online and hybrid learning such as interactivity between faculty and students, comfort with technology and lack of technology skills, level of knowledge regarding course content, responsibility for personal learning, and previous online learning experience, there are still a number of fruitful and under researched questions that should be addressed.

LITERATURE REVIEW

As has been noted, online learning, in particular – hybrid delivery, is increasing in higher education. Understanding student satisfaction within this delivery format has implications for colleges and universities and their faculty as they establish policies, resources, and support mechanisms to ensure the success of blended learning initiatives (Vaughan 2007).

Expectations are one critical link to assessing student satisfaction. To date, most studies have assessed satisfaction as an a posteriori measure; that is, satisfaction is measured by a single item at the completion of the online course (e.g., Comm and Mathaisel 2002; Cobb 2011). Little

research, however, has attempted to measure the gap between students' expectations and perceived performance in an online course. A notable exception was the work of O'Leary and Quinlan (2007). Based on the satisfaction/dissatisfaction theory (Oliver 1980), these authors assessed student satisfaction by comparing actual versus expected online learning experiences. A SERVQUAL methodology was employed (Parasuraman, Zeithaml, and Berry 1985; 1988). Levels of satisfaction were determined by comparing expectations of quality before the course began with perceptions of quality after the course was delivered.

The Sloan Consortium's Pillar Reference Manual on Student Satisfaction supports the importance of expectations. They identify five factors that result in overall student satisfaction with online learning, one of which pertains to expectations: A match between actual and expected learning experiences (Sloan Consortium pdf). Vaughn (2007) points to student expectations as one of the challenges of implementing blended courses. For example, he contends "students new to blended learning initially equate fewer in-person classes to less course work" (p.85). LaBay and Comm (2011) studied the differences in student expectations in traditional courses versus distance learning courses. Their findings show that students generally have a favorable predisposition toward online coursework. In contradiction to Vaughn (2007), however, they found students expect more rather than less work and have lower learning outcomes from online classes. La Bay and Comm concluded that as "students become more familiar with, and participate in, a greater number of online courses, and those using a hybrid delivery method, one would anticipate a greater congruence between student expectations and learning outcomes" (p. 90).

Other researchers such as Wu, Tennyson, and Hsia (2010); Jackson, Jones, and Rodriguez (2010), and Osborne, Kriese, Tobey, and Johnson (2009) also investigated expectations. Wu et al. found that performance expectations significantly affected learning satisfaction. Four factors impacted students' performance expectations: Students' computer self-efficacy; system functionality; course content; and interaction between student and instructor. Jackson, Jones, and Rodriguez (2010) studied faculty actions that affected student satisfaction in two web-based courses. Among several factors, they found that clearly specified expectations (either verbal or in the syllabus) were highly correlated with student satisfaction. Osborne et al. studied the assumptions of faculty and students regarding online learning (e.g., internet courses are easier; students learn less; internet courses take more time; and interactions in internet courses are less effective). While they did not measure expectations per se, their assumption construct and the items developed were essentially expectation measures. Expectations are "assumptions of performance" that are typically evidence-based stemming from three sources: personal past experience, the experience of others (e.g., family or friends), and what is seen as customary, e.g., "It's usually done this way" (Press 2006).

To date, no studies have investigated two distinct categories of student expectations: "preconceived" versus "informed." Students bring preconceived expectations into the learning environment. Preconceived is defined as "to form (as an opinion) prior to actual knowledge or experience (*preconceived* notions)" (Merriam-Webster 2012). These expectations often change through receiving new information or updated experiences, becoming informed expectations. For example, once a student has received a course syllabus, explored the course website, and become familiar with the nature of the assignments, their expectations may change concomitantly.

The issues of preconceived expectations are further complicated by the fact that some students have had experiences with online learning while other students have not. Many students

enter college having experienced blended learning in earlier school settings. In addition, students are influenced by the experiences of others (family and friends) who have taken online courses (either hybrid or fully online). Therefore, students enter a class with preconceived notions; however, the level of sophistication in their preconceived notions varies dramatically depending on factors such as: rumors, personal experiences, peer experiences, reputation of instructor, and lack of standardization across online courses. They may have negative perceptions also due to their time management skills, comfort with technology and discipline (Napier, Dekhane and Smith 2011).

Purpose of Research

The purpose of this research was to investigate three research questions: (1) What are students' preconceived and informed expectations regarding hybrid learning? (2) How satisfied are students with the hybrid course? (3) What factors are related to satisfaction with hybrid learning?

Methods and Measures

Data for this study was collected during the fall term of the 2011-2012 academic year. The sample included undergraduate students from one upper level retail marketing course offered at a public university in the eastern half of the United States. A total of 44 students participated in this study, including 20 men and 24 women. Fifty-two percent were seniors and forty-eight percent were juniors. Fifty-two percent (23 participants) indicated that they had previously taken an online course.

Prior to the 2011 fall semester, the retail marketing course had been taught exclusively in a traditional, face-to-face setting. The instructor received approval to modify the course and transition it from the traditional format to a hybrid-learning format. Students were unaware of the change in delivery format when they arrived to class on the first day. Using a similar method employed by O'Leary and Quinlan (2004), student satisfaction was assessed based on the expectancy confirmation/disconfirmation paradigm originated by Oliver (1980).

Both preconceived and informed expectations were measured in this study using a set of forty-one expectation items covering six factors: technology, time management, course content, student attitudes, communication, and course community. The six factors were developed from a review of the literature on student satisfaction, specifically the work of Sinclair (2011), Wu, Tennyson, and Hsia (2009), and El Mansour and Mupinga (2007). Preconceived Expectation items included: "I expect there are more technical problems with computers in a hybrid course." "I expect that it is easier to get an 'A' in a hybrid course than a traditional course." "A hybrid course would be a good learning experience." Informed Expectation items included: "I expect that there will be more technical problems with computers in this hybrid course." "I expect that it will be easier to get an 'A' in this hybrid course than a traditional course." "I expect this hybrid course will be a good learning experience." All items were assessed on a 5-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree.

First, students were given two pre-course questionnaires consisting of the 41 expectation items. The first pre-course survey measured preconceived expectations about hybrid courses in general and occurred on the first day of class before students received any information about the hybrid delivery format that would be employed during the semester. The first survey also

included questions regarding students' interest in taking a hybrid course and past online experiences (if any). The second survey converted the same 41 preconceived expectation items into informed expectations. This survey was distributed on day two after the following events: 1) The students were informed of the hybrid course format; 2) The instructor reviewed the hybrid course syllabus; and 3) The students were assigned homework to thoroughly review the hybrid course materials on the university's class management system.

Finally, an end-of-course questionnaire was given during the last week of classes. To enable the researchers to match expectations with performance, perceived performance items were developed by converting the expectation questions used in the first two surveys into perceived performance statements. The same set of forty-one expectation items covering six factors: technology, time management, course content, student attitudes, communication, and course community – were converted into perceived performance items. Sample items included: "There were more technical problems with computers in this hybrid course." "It was easier to get an 'A' in this hybrid course than a traditional course." "This hybrid course was a good learning experience." All items were assessed on a 5-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree.

To measure student satisfaction, students were asked to respond to the following item: "Overall, how satisfied were you with this hybrid class?" and "How likely would you be to recommend this hybrid class to other students?" Both items were assessed on a 5-point Likert scale.

Results

In order to answer the first research question (i.e., what are students' preconceived and informed expectations regarding hybrid learning), a series of descriptive statistics were run for each of the 41 expectation items for surveys one and two. For both preconceived and informed expectations, the means for an overwhelming majority of the items were essentially neutral, hovering around the mid-point on the 5 point Likert scale. Standard deviations for almost all items were less than 1.

To test for significant difference between perceived (first survey) and informed (second survey) expectations, t-tests were run. Results of the t-tests showed a statistically significant ($p \leq .05$) difference for 11 expectation items (see Table 1). The differences found in the t-tests are expectation items relating to student attitudes, course content, and communication factors. For the issues of technology, time management, and course community, there were no significant differences between students' preconceived and informed expectations.

The second research question asked how satisfied students are with the hybrid course. Two measures were used to measure satisfaction: overall satisfaction and likelihood to recommend. In terms of their overall satisfaction, the mean was 2.98 (S.D. = .862). For likelihood to recommend, the mean was 3.18 (S.D. = 1.24). These means hover around the mid-point of the scale.

The third research question asked what factors are related to student satisfaction in a hybrid course. To determine what e-learning factors were most related to student satisfaction, we ran a Pearson correlation on all informed expectation items with the satisfaction measure. The significant correlations can be found in Table 3. The correlation results show that the factors related to student satisfaction are multi-dimensional; items from all six factors measured (course community, technology, time management, course content, student attitudes, and

communication) showed significant correlation with satisfaction. For example, in terms of course community, the more students felt a “part of the class” and had the opportunity to learn from others the more satisfaction they reported with the hybrid format ($r = .202, p < .05$). Students’ comfort and skill level with technology also played a role. The more students perceived technology as a barrier to their learning, the less satisfied they were with the hybrid approach ($r = .378, p < .01$). Time management also related to student satisfaction. Since online learning requires discipline and self-learning on the part of the student, it is not surprising that the results showed the more likely students are prone to procrastination, the less they were satisfied with the hybrid delivery method ($r = -.214, p < .01$). Also significantly related to satisfaction was students’ perception that the hybrid format offered them more flexibility with their personal schedules ($r = .350, p < .01$). Communication was also a key factor related to satisfaction. Communication issues positively related to student satisfaction included: improving the dialogue with the instructor ($r = .256, p < .01$) and students ($r = .300, p < .01$), encouraging differing viewpoints ($r = .267, p < .01$), and having online components that enhanced the interaction during face-to-face time ($r = .302, p < .01$). Course content, in addition to course projects and assignments, was also related to satisfaction ($r = .353, p < .01$). The more students find the course content interesting ($r = .320, p < .01$) as opposed to boring ($r = -.372, p < .01$), the more they reported being satisfied with the hybrid format.

Discussion

Online course delivery is commonplace on college campuses today. In fact, 52% of the respondents in this study reported having previously taken an online course. As such, an assessment of student satisfaction with this delivery method is appropriate to improve online teaching and student learning. This research study relies on the expectancy disconfirmation paradigm (Oliver 1980) to measure student expectations and perceived performance of online course delivery. There are several interesting take-aways from this research. First, students do in fact form expectations about online courses, covering a wide variety of topics such as technology, course content, difficulty level, and communication with instructor and fellow students. Some of these expectations are brought with them on the first day of the course (preconceived expectations), and some of these expectations change as they are provided information about class activities and procedures (informed expectations). The results suggest a need for faculty and major program areas to “manage the expectations” of students who are considering enrolling in a hybrid course. Specifically, departments should ask how they can assist students in making more informed choices regarding whether or not to select hybrid courses? By eliciting student expectations, faculty can deal with any erroneous conceptions or clarify course policies and procedures before an unsatisfactory experience occurs. For example, in this study, students’ expectations about course content and whether the course would be a good learning experience improved after reviewing the syllabus and being briefed by the instructor on the plan for the semester.

In this study, satisfaction levels with the hybrid course format were relatively low, hovering around the mid-point of the scale. Students’ overall satisfaction was a mean of 2.98 (S.D. = .862). In terms of their likelihood to recommend the course to friends, the mean was 3.18 (S.D. = 1.24). When comparing our results to the past research, the literature shows mixed results on student satisfaction. Some authors report students are very positive about their experiences with blended learning courses (Vaughn 2007). In one study, Banerjee (2011)

reported over half of the respondents (fifty-seven percent) liked blended formats. Lim, Kim, Chen, and Ryder (2008) results also support hybrid learning. They investigated the effects of three different modes of instructional delivery (traditional, online, and hybrid). Students in the hybrid learning group reported significantly greater satisfaction levels with their overall learning experience than students in the traditional group. However, no difference in student satisfaction was found between students who studied purely online and students who studied in a traditional classroom environment. Other researchers have reported contradictory results. Vamosi, Pierce, and Slotkin (2004) in their study of distance learning in an basic accounting course, found that students reported lower relative levels of satisfaction with the online component of the course and less effectiveness mastering the accounting concepts. Castle and McGuire (2010) suggested that “undergraduate and graduate students across various disciplines generally prefer onsite learning to either online or hybrid teaching modalities.” (p. 37). It seems that despite the fact that today’s traditional-age college students have grown up with technology and often expect online features to be incorporated into their academic course work (e.g., recorded lectures, computer simulations, computer conferencing, and virtual advising), they also perceive online courses to require more work, have lower learning outcomes and desire for them to be priced lower than traditional courses (La Bay and Comm 2011; p. 89), which contradicts results from a meta-analysis completed by Means, Toyama, Murphy, Bakia, & Jones (2009) suggesting students may perform best in hybrid courses because of differences to conditions of time on task, curriculum and pedagogy, rather than the medium itself. Estelami (2012) contends that online learning creates certain demands and pressures for students that may not translate into higher levels of student satisfaction. Further, La Bay and Comm (2011) contend that student satisfaction with online delivery is impacted by academic status (graduate versus undergraduate), gender, and students’ inclination to take online courses.

Limitations and Future Research

As with any research, limitations were present. The limitations unique to this study include a small data sample of 44 students enrolled in one upper level (junior/senior) retail marketing course taught by one professor. This was also the first time that the retail marketing course was offered in the hybrid format and students were not aware of the format change until after they were enrolled and received the syllabus on the first day of class. Student course evaluations revealed that some students may have felt “tricked” into a course delivery that they may not have signed up for had they known in advance. In fact, when asked on the initial survey if they would have any interest in taking a hybrid course, only 9 students out of 44 students (or 21%) expressed some interest or a great deal of interest in the hybrid delivery. In addition, the first time a course is offered in a hybrid format, problems normally arise as they often do with any new course offering.

Future expansion on this research could include increasing the sample size and including other hybrid delivery formats offered for different majors and different undergraduate levels. A more accurate representation of the student population would be achieved by this increase in sample size and diversification of hybrid courses for which students would be assessing in their survey responses. Future research could include assessing student versus instructor expectations and how those differences could be better managed.

Table One
Differences Between Preconceived and Informed Expectations
T-Test Comparisons: Significant Results

	"Preconceived" Expectations n=44	"Informed" Expectations n=42	t-value	p
Projects/Assignments would help build an understanding of course related concepts and principles.	3.34	3.67	-2.105	0.038
The hybrid course would be a good learning experience.	3.37	3.98	-3.146	0.002
Hybrid course would be more "boring" than traditional course.	2.90	2.38	2.323	0.023
Novelty of the hybrid course format would inspire a greater interest in learning course material than a traditional course.	2.93	3.36	-2.869	0.005
Students would be less willing to "speak their mind" in the hybrid course format.	2.88	2.40	2.188	0.032
Students would communicate more with each other in hybrid course.	3.07	3.50	-2.077	0.041
Instructor feedback would be slower in comparison to traditional courses.	3.19	2.69	2.497	0.015
Online discussions and debates would allow more time to reflect and prepare well thought out responses.	3.28	3.79	-2.478	0.015
The hybrid course would have less camaraderie among students.	3.12	2.76	2.286	0.025
Less opportunity for each student to contribute to class learning.	3.09	2.69	2.012	0.047
Differing viewpoints to be encouraged and discussed.	3.19	3.57	-1.980	0.051

Table Two
Informed Expectations versus Perceived Performance: Were Expectations Met?
T-Test Comparisons: Significant Results

	"Informed" Expectations n=42	Perceived Performance n=40	t-value	p
Easier "A"	2.71	2.18	2.722	0.008
Easier Grading	2.90	2.35	2.709	0.008
Encourage Discussion	3.52	3.00	2.457	0.016
Good Learning Experience	3.98	3.33	2.847	0.006
Greater Interest	3.36	2.73	3.875	0.000
More Student Communication	3.50	3.08	2.098	0.039
More time to think out responses	3.79	3.25	2.331	0.022
Comfortable participating in the face-to-face interactions	3.24	3.85	-4.470	0.000
Improve the dialogue with the instructor.	3.33	2.93	2.247	0.027
Online components will enhance interactions during the face-to-face class time.	3.29	2.78	2.679	0.009
Uncomfortable participating in the online interactions	2.74	2.08	2.847	0.006
Improve the dialogue between students.	3.36	2.93	2.180	0.032

Table Three
Relationship of Expectation and Satisfaction
Correlations: Significant Results

Variable	Mean	S.D.	Pearson Correlation
Students feel more “a part of the class”	2.8	0.939	0.202*
Group work more fun	3.13	1.289	0.376**
Improve the dialogue with the instructor	2.93	0.944	0.256**
Better opportunity to learn from other students	3.1	1.057	.360**
Differing viewpoints to be encouraged and discussed	3.45	0.846	.267**
Online components will enhance interactions during the face-to face class time	2.78	1.074	.302**
Improve the dialogue between students	2.93	0.944	.300**
Project/assignments build learning	3.4	0.928	.353**
Withdraw	2.7	0.992	-0.236**
Good learning experience	3.33	1.185	.496**
“Boring”	2.44	1.021	-0.372**
Greater interest	2.73	0.816	.320**
More flexibility	3.55	1.26	.350**
More time to think out responses	3.25	1.149	.308**
Tech requirement barrier	2.63	1.102	-0.378**
Procrastination	2.93	0.944	-0.214*
Tech comfort	3.3	1.043	.382**
Tech enhance learning	3.4	1.057	.382**
Learn less	2.8	1.265	-0.325**
Encourage discussion	3	1.038	.272**
Activities consistent with course	3.53	0.877	.328**
*-Correlation is significant at the .05 level (2-tailed)			
**-Correlation is significant at the .01 level (2-tailed)			

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