

Students' satisfaction from blended learning instruction

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Abstract: During the past few years the number of courses offered online has greatly increased as technology has made delivery of such courses more feasible. Blended learning environment amalgamates the advantages of distance education with the effective aspects of traditional education. The purpose of this study was to investigate the effectiveness of blended learning instruction in terms of students' satisfaction. Participants were sixty one (n=61) undergraduate students, between the ages from 17-24 years old. Forty-four percentage (44.3%) of the participants were male and fifty-six were female (55.7%). For the data collection at the end of this study, students completed a questionnaire with 2 sections. The first section included the students' demographic/personal data. The second section evaluated students' satisfaction about the blended learning course. Students' satisfaction had been acknowledged as an important factor in order to estimate the effectiveness of a course, especially a blended course. Data analysis revealed that perceived e-learner satisfaction was higher than the average indicating students' high satisfaction with the overall learning experience.

Introduction

Internet education is now not only an established phenomenon but also a growing industry. During the past few years the number of courses offered online has greatly increased as technology has made delivery of such courses more feasible. According to Allen & Seaman, (2007), improving student access to higher education had been cited as a major reason for offering more online courses and programs. The term blended learning is used to describe a learning situation that combines several delivery methods with the goal of providing the most efficient and effective instruction experience by such combination (Harriman, 2004). Blended learning environment which is regarded as a different type of distance education amalgamates the advantages of distance education with the effective aspects of traditional education, such as face-to-face interaction (Finn & Bucceri, 2004). Singh (2003) had gone one step forward and introduced the term 'blended e-learning'. The aim of using blended learning approaches is to find a harmonious balance between online access to knowledge and face-to-face human interaction. In other words to find the balance of instructional strategies that is tailored

specifically to improve student learning (Osguthorpe and Graham, 2003). There is evidence that blended learning has the potential to be more effective and efficient when compared to a traditional classroom model (Heterick & Twigg, 2003; Twigg, 2003).

Although most research in distance education has examined the effectiveness of distance courses in the light of course grades and test scores, some researchers have contended that simply looking over grades was not sufficient to estimate the effectiveness of a course, since other factors such as student satisfaction might influence student achievement (Smith & Dillon, 1999). Satisfaction is “*the pleasure or contentment that one person feels when she/he does something or gets something that she/he wanted or needed to do or get*” (Collins Cobuild English Dictionary, 1999). Although students’ satisfaction is not necessarily correlated with achievement (Moore & Kearsley, 2005), satisfaction seemed to be a very important component for the successful completion of the course (Chang & Fisher, 2003). Furthermore, satisfaction contributes to motivation, which is essential for student success (Bollinger & Martindale, 2004). It appeared that students in distance courses are likely to be dissatisfied and frustrated with the following factors: (a) unclear expectations from instructors, (b) tight timeline, (c) workload, (d) poor software interface, (e) slow access, and (f) no synchronous communication (Gaddis, Napierkowski, Guzman, & Muth, 2000). Student’s satisfaction is also likely to determine whether the student takes subsequent courses in this format or with the same education provider (Arbaugh, 2000). It is crucial that researchers and social scientists continue to explore the advantages and disadvantages of online distance education versus traditional instruction as well as the relationship between student satisfaction and distance education (Sahin & Shelley, 2008). In distance education settings, satisfied students learned more easily, were less likely to drop out of class for non-academic reasons, were more likely to take additional distance courses, and to recommend the course to others (Biner, Dean, & Mellinger, 1994; Arbaugh, 2004). It seems that the degree of student satisfaction and likelihood of subsequent enrollment in online courses depends, in part, in how well the courses are planned and taught (DeBourgh, 2003).

Therefore, the purpose of this study was to investigate the effectiveness of blended learning instruction in terms of students’ satisfaction.

Methods

Participants

Study participants consisted of sixty one ($n=61$) undergraduate students enrolled in “Motor Learning” course in a public university in Greece. Twenty-seven (44.3%) of the participants were male and thirty-four were female (55.7%). The participants ranged in age from 17 – 23. The convenience sample of participants was entered into the study through their voluntary participation.

The blended course

All course material was accessible over the web via the asynchronous course management system (e-Class). The “Motor Learning” course was designed and developed as a blended learning course for the purpose of this study. In designing the blended course, formal and informal data gathered from the students who had already

taken the course, were examined. Then the instructors specified the desired outcomes of the course in terms of goals and objectives. At the end, the content, the practice items and the assessment instruments were determined based on the course basic goal and objectives.

The course duration was 13 weeks. The course commenced with a 90-minute Face to Face lecture where the learners had the opportunity to meet each other and the instructor. In this F2F introductory session students were presented with the learning objectives of the course. The F2F meetings took place every second week. After the F2F lecture by the instructor, students were presented with a problem solving activity to complete. A short summary lecture followed each activity. For the weeks when the students did not have a F2F meeting, they were expected to log onto the course individually from home, work or a University computing cluster, whichever was most convenient, and read that week's course material, download resources (such as lecture transcripts and journal papers), and follow instructions to complete tasks. Weekly quizzes and self-evaluation questions were given online. Also they had to accomplish an online assignment due two days after the asynchronous online lecture. A second online assignment due at the end each week reinforced concepts dealt with in each lecture every week the course lasted. Students could communicate and interact with the instructor and with each other by e-mail or over forums. Students were expected to post their comments regularly in an asynchronous online forum and to comment on and generate ideas with other students while the instructor coordinated the procedure. Topics of discussions were related with the concepts introduced in the course's modules. All contributions were graded. Students' evaluation was based on their performance to the two weekly assignments and to an exam paper at the end of the semester and also to their participation in a weekly discussion concerning the thematic area of the week.

Data collection instrument

For the data collection at the end of this study, students completed a questionnaire with 2 sections. The first section included the students' demographic/personal data. Demographic information was collected to obtain descriptive characteristics for the students. The second section evaluated students' satisfaction about the blended learning course. The satisfaction form that measured perceived e-learner satisfaction had 9 five point Likert-type items which were adapted from Arbaugh (2000), such as: I was very satisfied with the course; I feel that this course served my needs well; I was very disappointed with the way this course worked out (reverse). The scale focused on students' satisfaction with the course, their perception of its quality, and their likelihood of taking future courses with blended instruction. There were positive and negative statements on the scale. The positive items were coded from 5 (strongly agree) to 1 (strongly disagree), and the negative items were coded from 1 (strongly agree) to 5 (strongly disagree) for each statement. The alpha reliability coefficient of the satisfaction scale was .93 indicating that the instrument was highly reliable.

Results

Demographics

A total of 27 (44.3%) of the students were male and 34 were female (55.7%). Overall 43 (70.5%) students reported their age as being 17-18 years old, 15 (24.6) were between 19-20 and 3 (4.95) were between 21 and 23 years old.

Answering the question about the use of the e-class 26 (42.6%) of the students reported using it every day, 27 (44.3%) were using it two or three times every week and 8 (13.1%) were using it only when it was required by the course.

The percentages of students' prior experience with blended courses are displayed in figure 1.

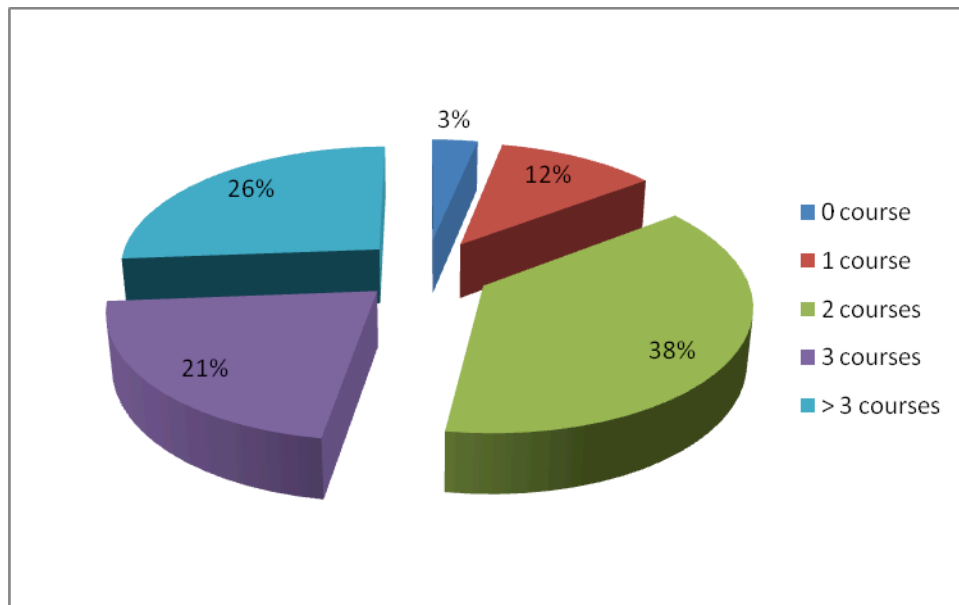


Figure 1. Percentages of participants' prior attendance of hybrid courses.

Reliability

Inferential statistical analyses were performed by using SPSS 15.0 computer software. The alpha reliability coefficient of the satisfaction scale was .71 indicating that the instrument was reliable.

Perceived e-learner satisfaction

One-sample *t* test was conducted on the students' satisfaction with the blended learning course, to evaluate whether their mean were significantly different from 2.5, which is an accepted mean for students' satisfaction. The sample mean of 3.61 ($SD = .72$) was significantly different from 2.5, $t(60) = 12.016$, $p < 0.01$, concerning perceived e-learner satisfaction. The 95% confidence interval for perceived e-learner satisfaction mean ranged from 3.43 to 3.80. The results support the conclusion that students' satisfaction was higher than average.

Students responses to the question “If I had the opportunity to take another course via the Internet, I would gladly do so” indicate that 54% of the students were looking forward to take another blended course while only the 21% expressed a negative opinion (see Figure 2). The sample mean for this question was 3.48 ($SD = 1.2$).

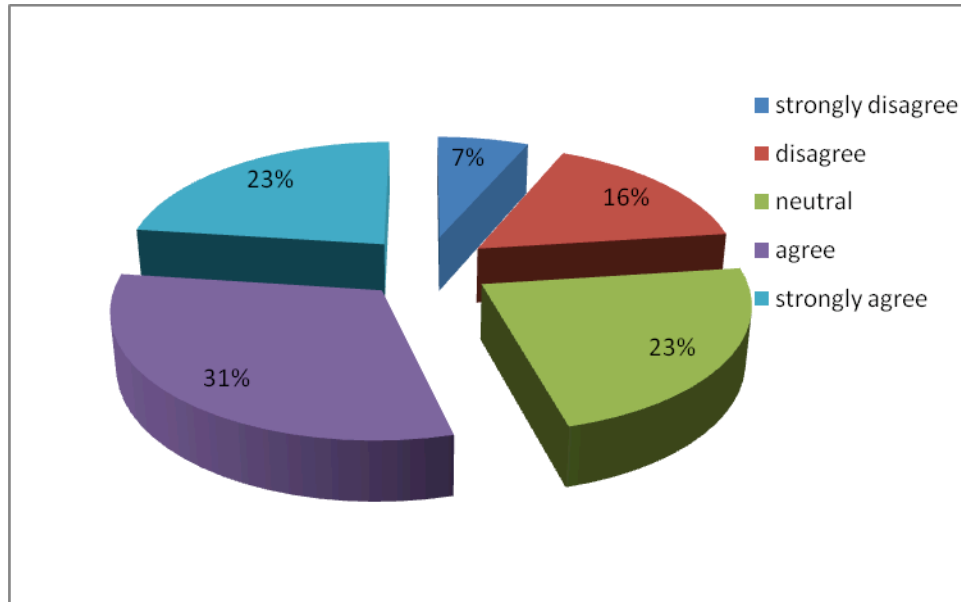


Figure 2. Percentages of participants who would take another blended course .

Discussion

Students’ satisfaction had been acknowledged as an important factor in order to estimate the effectiveness of a course, especially a blended learning course. Although students’ satisfaction hadn’t necessarily been associated with achievement, satisfied students are motivate and are more likely to accomplish their cognitive goals. The purpose of this study was to investigate the effectiveness of blended learning instruction in terms of students’ satisfaction.

Data analysis revealed that perceived e-learner satisfaction was higher than the average indicating students’ high satisfaction with the overall learning experience. Students seemed satisfied from the way the course’s context was delivered to them. This is a very important component for the effectiveness of the course since satisfied students learned more easily, were less likely to drop out of class for non-academic reasons, were more likely to take additional distance courses, and to recommend the course to others (Biner, et al., 1994).

The results also indicated that 54% of the students were looking forward to take another blended course. Such findings corresponded to previous studies (Biner, Summers, Dean, Bink, Anderson, & Gelder, 1996; Arbaugh, 2000), which indicated that simply asking

students whether they would enroll in another distance education course could determine students' satisfaction with the course they are taking. This finding suggests that a blended learning format can be a viable option to maintain and maybe even increase student satisfaction.

Researchers pointed out that students with more exposure to distance education settings were more likely to express greater satisfaction with the learning environment than with traditional courses (Arbaugh, 2004; Flowers, Moore III, & Flowers, 2008). Only the 21% of the students expressed a negative opinion about the possibility of attending a blended course at the future. The explanation for this might be that 15% of the students, as shown in Figure 1, had little/small exposure to blended learning settings since they attended none or only one course with a similar learning environment,

Conclusion

The integration of an online learning environment and a classroom environment is likely to combine ideally the advantageous aspects of both types of instruction. But it is important for instructional designers and distance educators to offer more flexible delivery options and providing more controls to students and to carefully design distance courses to provide students with meaningful opportunities.

Further research in this area will also help target deeper research as we begin to understand components of perceived and realized satisfaction and quality of blended-learning experiences. Although much larger samples will be needed to do so, looking at effects for course type (field, level of rigor, etc.) will also help to uncover context specific nuances for targeting efforts in this emerging field. Being able to understand the needs of students, support students in blended courses, and promote successful learning experiences will be critical in the overall success of the blended-learning arena.

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