Students' Perceptions of Technology-based Marketing Courses

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Abstract

Distance education courses have been traditionally delivered via static print-based packages. However, advances in technology and greater use of multimedia in education have provided an opportunity for course designers to enrich students' learning experiences by providing technology-based learning resources that comprise a range of multimedia and online components. Driving forces including pedagogical, opportunistic, pragmatic, and psychological motivations have encouraged educators to adopt educational technologies for designing and delivering their courses. In this paper, the findings of two electronic surveys used to determine distance education students' perceptions of two marketing undergraduate courses that have recently been converted from a print-based to a technology-based course (comprising an interactive CD and a course homepage) are presented. The findings indicate that respondents enjoyed using the course CD, found the course CD to be easy to use and navigate, and agreed that the course CD had assisted their performance in the course. The findings also indicated that respondents perceived the multimedia elements that were housed on the course resources to be valuable in terms of achieving desired learning outcomes.

Introduction

In recent times, marketing educators have been enhancing or replacing elements of their traditional on-campus lecture and tutorials with more advanced learning technologies including interactive CDs and electronic communication via e-mail, online discussion forums, and chat rooms (Eastman and Owens Swift, 2001; McPhail and Birch, 2004). Major distance education providers, such as the University of Southern Queensland have traditionally delivered courses via static print-based study packages, typically comprising an introductory book, a study guide and a book of readings. However in recent times, a number of courses have been converted to technology-based courses comprising an interactive CD accompanied by a course homepage. The shift has resulted from a number of driving forces including pedagogical, pragmatic, opportunistic, and psychological motivations. This trend has attracted the interest of researchers concerned about the impact of these changes on students in terms of both student acceptance and performance (Hunt, Eagle and Kitchen, 2004; McDonald and McPhail, 2004). The purpose of this paper is to investigate distance education students' perceptions of technology-based learning resources for undergraduate marketing courses.

Motivations for Developing Technology-based Learning Resources

Educational technology is defined as "recent developments in computer-based technologies used to facilitate teaching" (Ebersole and Vorndam, 2003, p. 4). A review of the literature has revealed that there are a number of pragmatic, opportunistic, psychological, and pedagogical motivations for the adoption of educational technologies for the purpose of designing and delivering courses (Ebersole and Vorndam, 2003; Tetiwat and Huff, 2002). For example, *pragmatic motivations* for housing materials on CDs and course homepages include the

convenience of communicating electronically with students who are studying at a distance, the reduced cost of printing and distribution of print-based materials, effective and efficient use of learning time, and the need to remain competitive by meeting student demands (Ebersole and Vorndam, 2003). *Opportunistic motivations* for adopting educational technologies include embracing advanced educational and communications technologies and multi-media opportunities, and accessing a wealth of rich information from the Internet (Ebersole and Vorndam, 2003). However, the success of the shift to technology-based courses requires that students have access to the necessary technology, and that students are "techno-savvy" enough and willing to access these technologies (McCorkle, Alexander and Reardon, 2001). *Psychological motivations* may include the personal gratification or satisfaction of the educator and the perceived need of the educator to be innovative, creative or 'state of the art' in the development of their learning resources (Ebersole and Vorndam, 2003; Jacobsen, 1998).

However, the primary motivations for the shift away from static print-based materials toward technology-based resources should be based on sound pedagogy. *Pedagogical motivations* for developing technology-based resources may reflect a shift away from a teacher-centred, instructivist model of teaching toward a more learner-centred, socio-constructivist approach. For example, online discussions allow students to learn collaboratively by sharing their experiences and perspectives to co-construct knowledge by arriving at shared meanings (Jonassen, 1999). Electronic communication skills and competence in the use of electronic media are attributes that are required from today's marketing graduates (Vlosky and Wilson, 2004). Hence, many marketing educators have adapted their teaching strategies and resources to facilitate the development of these important skills (Laurillard, 2002).

Another key pedagogical motivation for developing technology-enhanced resources is to cater for diverse student learning styles or modalities (Fleming, 1995). Fleming (1995) identified four learning styles, namely, visual, aural, read/write, and kinaesthetic (VARK). While some students may have one predominant learning style, many students are multi-modal. The ability to house multi-media elements on CD and course homepage allows instructors to cater for diverse learning styles. For example, visual/aural learners may learn better by viewing lecture slides and listening to an audio explanation of the course content than by reading a study guide or a text book. Kinaesthetic learners who 'learn by doing' may benefit by interacting with other students on the course homepage or working through an interactive diagram on the CD. Indeed, more effective learning occurs when multiple senses are engaged (Kearnsley, 2000). Dual coding theory indicates that multiple representations of content in both visual and verbal form can lead to improved retention by reducing the cognitive load on working memory (Bodemer and Ploetzner, 2002; Mayer, 2001). Hence, educators adopt educational technologies with the aim of appealing to diverse student learning styles, and thus attaining improved learning outcomes (Ebersole and Vorndam, 2003; Jacobsen, 1998).

However despite educators' best motivations, it is important to determine how students perceive these technology-based learning resources. Students' acceptance of technology-based teaching requires a positive attitude toward information technology (Hunt, Eagle and Kitchen, 2004; McPhail and Birch, 2004). Further, the 'perceived usefulness' and 'perceived ease of use' of technology-based learning resources influence students' attitudes (Davis, Bagozzi and Warshaw, 1989). Due to the cost and resource intensiveness of the development of these resources, the impact of these technology-based learning resources on students' performance in the course and their satisfaction with the course resources should be determined before full-scale adoption of educational technologies is undertaken.

Case Studies – Undergraduate Distance Education Marketing Courses

This study focuses on distance education students enrolled in two undergraduate marketing courses that have been converted from print-based to technology-based courses comprising an interactive CD and a course homepage (WebCT). One of the courses, Introduction to Marketing (MKT1001) is part of the core of the Bachelor of Business at the University of Southern Queensland. The other course, Marketing Channels (MKT2004) is a second-level course in the marketing major. The interactive CD contains a section on 'getting started' and provides the necessary downloads to access the multi-media elements (flash, media player etc.). The introductory section of the CD includes a video introduction from the course leader, a hyperlinked study schedule, and audio explanations of the assessment items with links to assessment websites. The study modules housed on the CD include audio introductions, Breeze lecture presentations (PowerPoint with audio), interactive diagrams (with text and audio explanations), interactive quizzes and crosswords, hyperlinked examples and activities, and links to learning resources. The course homepage provides current information, such as announcements from course instructors, assignment and module discussion topics, and updated lecture recordings.

Research Method

To ascertain students' perceptions towards the technology-based learning resources and their perceptions of the value of the various elements housed on the course CD and course homepage, an electronic survey was conducted for each course at the end of the semester. Students were sent two follow-up emails reminding them to complete the survey. Students were asked how many times they had used the course CD and accessed the course homepage. Three items measured perceptions of the course CD on five-point Likert scales including enjoyment, ease of use and navigation, and perceived impact of the CD on their performance in the course. The students were also asked to indicate how valuable the various elements that were housed on the CD and the course homepage were in terms of achieving desired learning outcomes on five-point interval scales.

Research Findings and Discussion

The response for the electronic surveys was 86 students (32%) for the core course, Introduction to Marketing (MKT1001) and 31 students (60%) for the second level course, Marketing Channels (MKT2004). This represents a relatively high response rate as compared with the traditional print-based student evaluations used for distance education students where response rates are typically 'appallingly low' (J. Morris, 2005, pers. comm., 29 August).

First, respondents were asked to report on the number of times they had used the course CD and the course homepage (see table 1). The findings indicate high levels of usage of the course resources, with 75% of the respondents in the core course, and 83% of the students in the second-level using the course CD at least seven times in the semester. Approximately 83% of the respondents in both courses used the course homepage at least seven times in the semester.

Table 1: Number of Times Course Resources were Used by Valid Percentage

Course resource	12 +	7-12	4-6	1-3	0	Mean	St.D
Course CD - MKT1001	57.1	17.9	9.5	10.7	4.8	1.88	1.24
Course CD - MKT2004	70.0	13.3	10.0	6.7	0	1.53	.937
Course homepage - MKT1001	62.4	21.2	9.4	4.7	2.4	1.64	.998
Course homepage - MKT2004	60.0	23.3	13.3	3.3	0	1.60	.855

(Five-point usage scale: 1 = 12 or more times and 5 = 0 times)

Second, respondents were asked to indicate their level of agreement with three statements regarding the course CD (see table 2). For both courses, 83% of the respondents agreed that the course CD was easy to use and navigate. For the core course, 68% of the respondents agreed that they enjoyed using the course CD, and 77% in the second-level course agreed with the same statement. For the core course, 64% of the respondents agreed that the course CD assisted their performance in the course, while 73% in the second-level course agreed with this statement.

Table 2: Attitudes Toward the Course CD by Valid Percentage

Item	SA	A	N	D	SD	Mean	StD
Course CD was easy to use and navigate - MKT1001	64.3	19.0	11.9	2.4	2.4	1.60	.96
Course CD was easy to use and navigate - MKT2004	60.0	23.3	13.3	3.3	0	1.60	.86
Enjoyed using course CD - MKT1001	42.9	25.0	19.0	8.3	4.8	2.07	1.18
Enjoyed using course CD - MKT2004	60.0	16.7	3.3	10.0	10.0	1.93	1.41
Course CD assisted my performance in this course - MKT1001	38.6	25.3	21.7	8.4	6.0	2.18	1.21
Course CD assisted my performance in this course - MKT2004	60.0	13.3	13.3	0	13.3	1.93	1.41

(Five-point Likert scale: 1= SA, strongly agree and 5 = SD, strongly disagree)

Respondents were asked to indicate the perceived value of the elements housed on the course CD, in terms of assisting their performance and enhancing their learning experience (table 3).

Table 3: Perceived Value of CD Elements by Valid Percentage

Item	VV	V	Neutral	NVV	NV	Mean	StD
MKT1001							
Interactive diagrams	42.4	40.0	15.3	1.2	1.2	1.79	.83
Recorded lectures	45.9	34.1	16.5	1.2	2.4	1.80	.92
Links to key terms	36.5	38.8	21.2	2.4	1.2	1.93	.88
Linked USQ study resources	35.3	31.8	29.4	2.4	1.2	2.02	.93
Example-based hyperlinks	27.1	44.7	18.8	5.9	3.5	2.14	1.00
Activity-based hyperlinks	28.9	36.1	26.5	6.0	2.4	2.17	1.00
Quizzes/crosswords	22.4	34.1	35.3	2.4	5.9	2.35	1.04
MKT2004							
Interactive diagrams	60.0	23.3	10.0	3.3	3.3	1.67	1.03
Recorded lectures	37.9	37.9	24.1	0	0	1.86	.79
Links to key terms	36.7	43.3	16.7	3.3	0	1.87	.82
Linked USQ study resources	27.6	48.3	24.1	0	0	1.97	.73
Example-based hyperlinks	27.6	48.3	20.7	3.4	0	2.00	.80
Activity-based hyperlinks	20.7	54.8	17.2	0	3.4	2.07	.84
Quizzes/crosswords	23.3	46.7	20.0	3.3	6.7	2.23	1.07

(Five-point scale: 1= VV (very valuable), 2 = V (valuable), 4 = NVV (not very valuable), 5 = NV (not valuable))

In particular, the recorded lectures, interactive diagrams, and links to key terms were considered to be the most valuable elements by respondents in both courses. However, all elements housed on the course CDs were rated as valuable in terms of assisting performance and enhancing the learning experience

Finally, respondents were asked to rate the perceived value of various aspects of the course homepage, in terms of enhancing their learning experience (table 4). For both courses, the assignment discussion topics, announcements, and updated lecture slides were rated as the most valued. However, the remaining components including module discussion topics, links to resources, links to websites, and course and staff information were also valued.

Table 4: Perceived value of the Course Homepage Aspects by Valid Percentage

Item	VV	V	Neutral	NVV	NV	Mean	StD
MKT1001							
Assignment discussion topics	55.3	32.9	9.2	2.6	0	1.59	.77
Announcements	54.5	32.5	10.4	2.6	0	1.61	.78
Updated lecture slides	55.8	31.2	9.1	1.3	2.6	1.64	.90
Module discussion topics	39.5	36.8	18.4	3.9	1.3	1.91	.93
Links to resources	34.2	46.1	13.2	3.9	2.6	1.95	.94
Links to websites	33.8	42.9	18.2	3.9	1.3	1.96	.90
Course and staff information	31.6	36.8	3.9	0	1.3	2.07	.93
MKT2004							
Assignment discussion topics	67.9	21.4	3.6	3.6	3.6	1.54	1.00
Announcements	60.7	25.0	10.7	3.6	0	1.57	.84
Updated lecture slides	42.9	35.7	17.9	3.6	0	1.82	.86
Module discussion topics	28.6	53.6	14.3	3.6	0	1.93	.77
Links to resources	25.9	51.9	22.2	0	0	1.96	.71
Links to websites	27.6	37.9	34.5	0	0	2.07	.80
Course and staff information	28.6	35.7	32.1	3.6	0	2.11	.88

(Five-point scale: 1= VV (very valuable), 2 = V (valuable), 4 = NVV (not very valuable), 5 = NV (not valuable))

Conclusion

The findings from the two courses indicate that students have positive attitudes toward technology-based course resources and value the various multi-media components that are housed on the course CDs and course homepages. In particular, students in both courses agreed that they enjoyed using the course CD, found it easy to use and navigate, and also agreed that the course CD had assisted their performance in the course. A preliminary review of the data, in terms of strength of agreement, appeared to indicate that students in the second-level marketing course were particularly receptive to technology-based resources and more consistent in their responses. Such a finding could have been predicted, due to the greater level of interest and involvement by students majoring in marketing at the second level (MKT2004), as compared with students enrolled in a core course (MKT1001) of a Bachelor of Business program. However, a comparison of means indicated no statistically significant differences between the two cohorts. Hence, these findings may encourage more marketing educators to consider the adoption of educational technology for the purpose of designing and delivering distance education courses, due to the potential pedagogical benefits that may be achieved, in terms of student satisfaction with the course resources, enhancing the students' learning experience and students' perceptions of improved performance.

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