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Student Perceptions of an Educational Technology Tool: Video Recordings of Project Presentations

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Abstract

The primary goal of this study was to investigate students' perceptions of how incorporating a technological tool into the classroom education, the use of video camera for recording as well as discussing in-class group project presentations, influences their oral presentation, communication and career-related skills, learning motivations, and overall course evaluations. The research was conducted with 82 students enrolled in an undergraduate marketing course at a private university in Turkey. The findings illustrated that students evaluated the video-recorded presentations integrated into learning environment as highly effective at enhancing the learning outcomes and enriching the classroom education.

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Keywords: Educational technology; video; skills; learning outcomes; affect

1. Introduction

Contemporary marketing strategies require technological knowledge and skills for conducting successful goal-directed business activities. Therefore, business school educations should provide technological competence and application of technology to improve students' abilities to perform more efficiently and effectively in their future careers (Chonko, 1993). In recent years, marketing educators in particular have been trying to satisfy these current needs of business and industry by incorporating the latest technologies into their courses. Previous research has shown that educational technology tools enhance student learning and develop career skills (Clarke, Flaherty, & Mottner, 2001; Hunt, Eagle, & Kitchen, 2004; Kırkgöz, 2011; McCabe & Meuter, 2011; Young, Klemz, & Murphy, 2003). However, further research with clearly defined multiple learning outcomes and supported with empirical evidence is needed to understand the role of educational technology on learning (Clarke, Flaherty, & Mottner, 2001;

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Hunt, Eagle, & Kitchen, 2004; McCabe & Meuter, 2011; Young, Klemz, & Murphy, 2003). Thus, this study aims to broaden the existing body of knowledge by examining the impacts of incorporating an educational technology tool into the classroom education, the use of video camera for recording and then discussing in-class group project presentations, on five student-perceived outcomes: oral presentation skill, communication skill, career skill, learning motivation, and overall course evaluation. It also investigates students' evaluations of this educational technology, and how these evaluations are related with the learning outcomes perceptions.

2. An Educational Technology Tool: Video Recordings

Educational technology tools, which include online media-rich e-books, syllabus, cases and other course materials, chat rooms, electronic bulletin boards, CD-ROMs, laptop computers, PowerPoint slides, videos, and many other instructional technologies, are expected to increase student engagement, motivation and learning (Clarke, Flaherty, & Mottner, 2001; McCabe & Meuter, 2011; Odhabi & Nicks-McCaleb, 2011; Young, Klemz, & Murphy, 2003).

With regard to video recordings, earlier studies showed that students may benefit from the use of video cameras in classroom and other learning environments in several ways including viewing recordings of missed lectures, and reviewing particular lectures as exam and assignment preparation at home (Odhabi & Nicks-McCaleb, 2011). Kirkgöz (2011) posit that integrating video-recording of student speaking in language learning enables students to watch and evaluate their performances, and make the necessary improvements. The contributions of this instructional technology to learning are still being examined in different fields, such as teacher preparation and life oral history collection (Christel & Frisch, 2008; Dymond & Bentz, 2008). Educators are also exploring ways to record and distribute lecture videos with minimum effort and cost (Chandra, 2007). However, additional research is needed to encourage educators to incorporate video recording techniques into the classrooms education, and to provide clear guidelines (Chandra, 2007; Kirkgöz, 2011). In this regard, the discussions of group project presentations by students based on video recordings are likely to enhance learning outcomes.

3. Anticipated Learning Outcomes

Since business schools may have a range of institution-specific objectives, there is no universal list of learning outcomes (Duke, 2002). However, many researchers suggest developing multiple learning outcomes specific to an education program, teaching method or instructional technology, and evaluating these outcomes on several different aspects by gathering the perceptions of students, employers and faculty (Clarke, Flaherty, & Mottner, 2001; Duke, 2002; Marks, 2000). Thus, this research examines the impacts of both the process of video recording in-class group project presentations and the discussions that arise from viewing these recordings on students' perceptions of five learning outcomes: (1) oral presentation skill, (2) communication skill, (3) career-related skill, (4) learning motivation, and (5) overall course evaluation. These dimensions were determined based on the aim of meeting the needs of business world.

3.1. Oral presentation skill

After graduation, students quickly discover the importance of the appropriate presentation of self in job interviews, and later, in professional presentations that may impact their future careers. In addition, students may learn from each other by actively participating in learning process, namely during presentations (Chonko, 1993). Oral presentation skills can be defined as ability to manage speaking tone, pace and body movements, to hold the attention of the audiences, to maintain adequate eye-contact and to handle the questions well (Magin & Helmore, 2001). With regard to technology, Özad and Kutoğlu, (2004) argued that students may prefer to use visual aids like VCD or power points in their presentations to make easier to present their ideas, to get the attention of the audience or to feel more confident and relaxed during their presentations. Therefore, the integration of video-recording of project presentations in learning environment has the potential to improve students' oral presentation skills.

3.2. Communication skill

Duke (2002) showed that students perceived communication skills as highly important for their future careers. Ability to speak effectively to groups, to communicate at the correct level of detail and to communicate orally are some of the crucial skills that students need in order to meet the expectations of the businesses. Unfortunately, business schools have been criticized for failing to provide graduates with oral and written communications of a sufficiently high standard (cf. Chonko, 1993). Projects, role-playings and presentations are recommended as examples of activities which are able to integrate communication skills into core marketing courses, and thus play a role in the redesigning of marketing education to meet the needs of the external business environment (Young & Murphy, 2003). Technology provides the ability of managing information and developing communication skills for marketing graduates (Hunt, Eagle, & Kitchen, 2004). Thus, group project presentations blended with video-recording can enhance learning outcomes in the communication skill context.

3.3. Career-related skill

The fundamental goal of business school and marketing education is to develop the skills required in today's complex, competitive, and changing work atmosphere (Hunt, Eagle, & Kitchen, 2004; Marks, 2000). Such skills that are needed by graduates include those that are needed for career preparation such as a good surrogate for real world experiences; those that are needed at the beginning of their careers such as job application skills; and those that are needed later, relating to job performance, such as conducting business meetings and giving presentations (Barnett, Greenberg, & Nicholls, 2007; Clarke, Flaherty, & Mottner, 2001; Duke, 2002). Clarke and his colleagues (2001) showed that educational technology tools play an effective role in preparing marketing students for employment, and real-world problems and tasks. Hence, the video recording of in-class group project presentations for subsequent discussions can be beneficial for students' career-related skills.

3.4. Learning motivation

In general, marketing educators can motivate their students to spend more time on course tasks by creating an effective technological learning environment (McCabe & Meuter, 2011). In particular, students' motivations to attend to educational activities may be closely related with the degree to which technological tools used in these activities help them to achieve their employment goals (Clarke, Flaherty, & Mottner, 2001). Thus, in examining the impact of technology on learning, Leidner and Jarvenpaa (1995) recommended to use self-efficacy, affect and motivation as learning outcome variables. Motivation variable can be defined as the degree to which a student is motivated by a particular method

(cf. Leidner & Jarvenpaa, 1995) or the extent to which a method of instruction motivates a student to work hard in the course (Young & Murphy, 2003). As a result, incorporating video recording of in-class group project presentations into the classroom education has the potential to motivate students to work hard for their presentations.

3.5. Overall course evaluation

A positive relationship between the preferences of certain instructional methods and overall attitude toward the marketing major has been found in prior research (Davis, Misra & van Auken, 2000). Notably, Young and his colleagues (2003) suggested using group project-based instructional methods to improve student learning performance and pedagogical affect. Moreover, when the technology is integrated into teaching and learning, such as using laptop computers in class, students are likely to have more favorable evaluations toward the pedagogical method, and in turn to have higher levels of knowledge gained, effort expended, and skills developed (Young, 2001). Consequently, the educational technology tool deployed in this study can improve students' overall course evaluations.

4. Methodology

This study was conducted with 82 students enrolled in an undergraduate marketing course at a private university in Turkey. The research process consisted of two stages: in the first stage, the lecture recorded students' in-class group project presentations on a weekly basis, and in the second stage, on the following day, students viewed the video-recordings, discussed their performance with the lecturer, and finally evaluated the use of video-recorded presentations integrated into learning environment by completing a survey.

4.1. Sample characteristics

Although 90 students participated in group project presentations, due to the absenteeism during survey administration, the response rate was 91%, yielding an effective sample of 82. Most of the students were in the second (50%) and third (34%) year of their undergraduate education, and studying public relations and advertising (59%). 72% of the respondents were female and 28% male. The average respondent age was 22.

4.2. Variables

Oral presentation skill was operationalized using by five items (ability to manage speaking tone, manage body movements, hold the attention of the audiences, maintain adequate eye-contact, and respond effectively to questions). Communication skill was measured by three items (ability to speak effectively to groups, communicate an appropriate level of detail, and communicate orally) adapted from Duke (2002). Career skill was assessed by a mixture of five items adapted from previous research (ability to get a job, expected performance on job, ability to conduct business meetings, ability to make professional presentations, and serving as a good surrogate for real world experiences) (Barnett, Greenberg, & Nicholls, 2007; Clarke, Flaherty, & Mottner, 2001; Duke, 2002). Learning motivation was measured by using two items (work hard for the presentation and study more to better learn the presentation topic) adapted from Leidner and Jarvenpaa (1995), and Young and Murphy (2003). These measurements were scored on a 7-point Likert-type scale, with the high end of the scale denoting a completely agree response

(“In my opinion, the use of video camera for recording and discussing group project presentations provided me high level of ability.../ motivated me to...”).

The four-item scale (effective/ineffective, useful/useless, satisfactory/unsatisfactory, good/bad) which was developed by Mitchell and Olsen (1981) and then adopted by Davis, Misra, and Van Auken (2000) was employed to measure the positive thoughts and feelings of students toward the educational technology tool used in this course. The same scale with four additional items (valueless versus valuable, good use of my time versus waste of my time, not enjoyable and desirable versus undesirable), which was modified from Davis, Misra, and Van Auken (2000), was used to measure overall course evaluations of students. The statements “Overall, in this class, the use of camera for recording and discussing group project presentations to assist learning.../overall, this course was...” were measured on a 7-point semantic differential scale.

5. Results

As shown in Table 1, average rating of oral presentation skill indicated that students evaluated the use of video camera for recording and discussing in-class group project presentations as having positive impact on their ability to make presentations ($M = 5.73$, $SD = 1.16$, cronbach alpha = .93). Similarly, the mean score of the communication skill demonstrated favorable students evaluations regarding the integration of video-recorded project presentations into learning environment to improve communication skills ($M = 5.70$, $SD = 1.04$, cronbach alpha = .88). As expected, results illustrated that students perceived blending classroom learning with video-recorded presentations as highly effective in developing their career-related skills ($M = 6.14$, $SD = .83$, cronbach alpha = .81). With regard to learning motivations, students responded favorably to the use of video camera to increase their motivations to work hard ($M = 5.89$, $SD = 1.08$, cronbach alpha = .78). The findings also revealed that students ‘ thoughts and feelings toward incorporating video recording of group project presentations into the classroom education were highly positive ($M = 6.27$, $SD = .95$, cronbach alpha = .92). Likewise, their perceptions of the overall value of the course were highly favorable ($M = 6.44$, $SD = .67$, cronbach alpha = .93). In conclusion, these findings showed that all the anticipated learning outcomes were achieved through the educational technology tool deployed in this course.

Table. Student Evaluations of Anticipated Learning Outcomes (N = 82)

	Mean ^a	Standard Deviation	Cronbach Alpha
Oral presentation skill	5.73	1.16	.93
Communication skill	5.70	1.04	.88
Career-related skill	6.14	.83	.81
Learning motivation	5.89	1.08	.78
Pedagogical Affect	6.27	.95	.92
Overall course evaluation	6.44	.67	.93

a. The results of one-sample t-tests showed that the means of all of the items are significantly greater than 4 ($p < .01$).

To further investigate the impacts of student evaluations of this educational tool on the learning outcomes, the correlations between these variables were measured. The results are presented in Table 2.

As can be seen, there was a strong, positive correlation between pedagogical affect and oral presentation skill ($r = .55$), communication skill ($r = .58$), career skills ($r = .55$), and overall course evaluations ($r = .57$, $n = 82$, $p < .01$). Only learning motivation and pedagogical affect was moderately correlated ($r = .40$, $n = 82$, $p < .01$). The reason for this may be student claims that they were unaware that presentations were to be recorded, and therefore were not motivated to make a greater effort in preparing their presentations.

Table. Correlation Matrix of Learning Outcomes (N = 82)

	Pedagogical affect	Presentation skill	Communication skill	Career skill	Learning motivation	Course evaluation
Pedagogical affect	1	,547**	,584**	,555**	,406**	,568**
Presentation skill	,547**	1	,848**	,430**	,471**	,334**
Communication skill	,584**	,848**	1	,534**	,493**	,446**
Career-related skill	,555**	,430**	,534**	1	,554**	,678**
Learning motivation	,406**	,471**	,493**	,554**	1	,361**
Course evaluation	,568**	,334**	,446**	,678**	,361**	1

** $p < .01$

6. Conclusion

This study implies that recording group project presentations on video and using these videos to evaluate student performances were perceived as an effective, useful, satisfactory and good instructional technology in promoting learning. Findings also revealed that this educational technology experience enriched classroom education by contributing positively to students' overall course evaluations.

Consistent with the literature, results demonstrated the positive influence of an educational technology tool on student learning. In particular, the video-recorded presentations integrated into the learning environment enhance skills which students may significantly benefit in their future careers. The perceived impacts of this educational experience indicated that the use of technology ensures students be able to make engaging presentations, to communicate successfully and to develop career-related skills. Moreover, the deployment of the instructional technology tool motivated students to study more for the course and the specific activity the educational technology targets.

In general, this study contributes significantly to the literature by providing a way of incorporating technology into classroom education to enhance student learning, and by examining its impacts on multiple learning outcomes specific to marketing major and business education. It can be said that by applying this method the needs of both students and business world that employs business school graduates can be met partially.

The current investigation has several limitations. Because the data was collected from a small sample drawn from a private university where students may have relatively high experience with different kinds

of instructional technology methods in various courses, the findings may have limited generalizability. Thus, further research with larger samples that are exposed to different levels of technological tools in classroom education should be conducted. Another limitation is that this work did not investigate the impacts of demographic characteristic and educational background on students' perceptions toward this technological tool. Future studies should consider these factors while examining the effectiveness of video recording of student presentations incorporated into learning environment.

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