Scenario-based Assessment Exercises and the Perceived Learning of Mass Communication Students

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Abstract

One of the biggest challenges faced by online learning systems is the absence of opportunities for the practical exposure of the students, especially in professional degree programmes. The theoretical knowledge they gain is undoubtedly more refined and enriched, but it is quite difficult to provide an e-learner with occasions where he/she can actually apply the concepts in real-time situations, as student and teacher are at a great distance from each other. This shortcoming can be overcome by giving scenario-based assignments to the students during their study programme. A hypothetical situation is created in scenario-based assignments where students are required to apply their theoretical knowledge according to the scenario given. In this way, students are actively involved in brainstorming rather than merely reproducing bookish knowledge. In this regard, the Virtual University of Pakistan has adopted advanced methodologies for learning and evaluation of its students. For this purpose, the researchers have aimed to measure the perceived learning of the students of the BS Mass Communication programme. The main objectives of this study were to determine the effectiveness of online scenario-based exercises on student learning and comprehension; and to enhance their analytical abilities and the mode of student-instructor interaction. For this purpose, five scenario-based assignments on various mass communication courses in the autumn 2012 semester were selected; and an online survey of all enrolled students in five subjects was conducted. The tool used in this study was derived from Renda-Tanali's (2012) research on security studies. For data analysis, descriptive statistics, a one-sample t-test, an independent sample t-test and regression analysis were applied. The results of the study indicated a positive student response towards e-scenario-based exercises. The two prominent outcomes identified by students were their improvement in decision-making skills and deepened understanding of real life situations. In the light of the findings of the study, it can be

concluded that students' learning in the context of scenario-based exercises was very encouraging for Mass Communication subjects.

Keywords: scenario-based assignments, subject understanding, analytical skills, student-instructor interaction

Introduction

Information communication technology (ICT) has produced very significant changes in the educational sector, particularly in the mode of delivery, new configurations of learning spaces and innovative pedagogical methods. Here, teachers are required to be more vigilant and analytical while students can learn and create discussions online. In this context, the emphasis is on exploring ICT tools to further revolutionize the process of e-learning (Mioduser et al., 2002).

Renda-Tanali and Abdul-Hamid (2011) examined the effectiveness of ICT tools for increasing classroom learning in various social sciences, as well as physical and computer sciences courses. Also, different audio-visual aids, blogs, wikis, social networking sites and podcasts have been found to be important instruments for training and education in social sciences schools (Bojanova and Pang, 2010; Monahan et al., 2008).

In professional subjects, particularly media studies, there is a dire need to introduce new approaches which can ensure that students learn about the practical implications of the subject. A scenario-based approach is regarded as one of the solutions to meeting the requirements of subjects of a practical nature in e- learning (Tanali, 2012).

Scenario-based approaches focus on exploring students' cognitive abilities and developing their decision-making ability. Studies conducted by Battersby (2008) and Oliver and Carr (2009) revealed that the use of such an approach in education enhances students' learning in practical subjects. Further, Abdul-Hamid and Lewis (2005) noted that students feel more satisfied while attempting structured activities which give them room for self-work and analysis. Students also show more interest in virtual classes and subjects which apply simulation exercise for learning. Including scenario-based learning in assignments enhances their success in particular courses (Abdul-Hamid and Ko, 2010).

Limson, Witzlib and Desharnais (2007) gave a scenario-based activity to science students to measure its effectiveness and, surprisingly, they found

that all the students — whether they were slow or fast learners — attempted it successfully. It was also observed that students were excited and motivated to do this activity, and a few of them reported that it helped them to understand concepts which they had not previously grasped in class.

It is a well-established fact that learning is encouraged among students when their active participation is ensured and they are provided with real-life situation in their semester activities, specifically in assignments. These types of applied and reflective activities help the instructor to develop and promote critical thinking among students and deepen their learning (Bransford, Brown and Cocking, 2000; Benek-Rivera and Matthews, 2004; Driscoll, 2002; Sarason and Banbury, 2004). 'Learning by doing' creates an environment for students to engage in some practical sort of activities and helps them to refine their understanding. When students construct knowledge on their own, this has a positive impact on their achievement of learning outcomes (Johnston, Killion and Oomen, 2005; Scardamalia, 2002; Watkins, 2005).

Using real-world problems and social contexts in assignments provides a solid base for enhancing students' cognitive abilities. Moreover, they are more motivated to participate in such creative activities (Quitadamo and Brown, 2001). Involving students in the practical contexts of subjects increases the likelihood of learning as compared with giving them abstract or out of context activities (Driscoll and Carliner, 2005).

One of the major benefits of using a scenario-based approach in learning situations is the ability of the learner to comprehend the situation and identify themes (Bell, Martin and Clarke, 2004). Driscoll and Carliner (2005) explained the outcomes of giving these context-based assignments, showing that it gears up the process of students learning by engaging them in brainstorming, critical thinking, and skilful analysis, application and synthesis of real-life social situations. While attempting such assignments, learners try to develop a connection between objects and real events and keenly visualize and validate the real happenings.

This paper aims to determine the effectiveness of a scenario-based approach in student assignments in mass communication subjects, and to find out the usability of this approach for the future.

Research Objectives

This research intends to:

- discover whether or not scenario-based exercises contribute to the development of students' subject understanding;

- study the role of scenario-based exercises in enhancing students' analytical skills;

- compare the perceived effectiveness of scenario-based exercises between students who are attempting it for the first time and those who have had prior exposure to such activities; and

- find out the impact of giving these assignments on student-instructor interaction.

Hypotheses

Hypotheses 1 and 2: There will be a significant mean difference in subject understanding and analytical skills of students from the test value (7 and 10 respectively).

Hypothesis 3: There will be a significant mean difference in effectiveness between the students who are attempting scenario-based assignments for the first time and those who have had prior exposure to such activities.

Hypothesis 4: Perceived student-instructor interaction will be significantly predicted by the use of scenario based assignments.

Method and Procedure

The present study was conducted on students on the BS Mass Communication programme of the Virtual University of Pakistan. As the purpose of the research was to see the perceived learning of students in scenario-based assignments, these courses of a practical nature were selected and scenario-based assignments were given to the students in the 2012 autumn semester. The courses included in this study were *Introduction to Mass Communication*, *Advertising for Print and Electronic Media*, *Reporting and Sub-editing*, *Communication Skills* and *TV News Reporting and Production*. In total, 1,170 students attempted the assignments in these courses, of which 658 responses were received to the online survey — an overall response rate of 56%. The survey questions were derived from the Tanali (2012) questionnaire on the following dimensions: subject

understanding, analytical skills enhancement, decision-making skills, practical exposure, application of theoretical knowledge, student-instructor interaction and overall effectiveness. The Cronbac alpha of the test was .926, which is highly reliable in social sciences (Field, 2009). The data collected from the students enrolled in the five different subjects were based on the same questionnaire, with minor modifications for the nature of the subject. Descriptive statistics, regression analysis, a one-sample t-test and an independent sample t-test were used to analyse the data.

Scenarios Description for Tools

Tool 1: An assignment entitled 'Images in Mass Communication – Impact of Photography' was used in the course *Introduction to Mass Communication*. In this assignment, students were given pictures of different incidences around the world and had to assign captions to each picture and critically analyse their impact on the target audience.

Tool 2: 'Levels and types of listening' was an individual assignment for the course on *Communication Skills*. In this assignment, the students' task was to watch an interview by a well-known anchor person with a famous politician in Pakistan. After this, they were asked to specify and justify the level of listening the guest was involved in and the type of listening the host exhibited.

Tool 3: In the course *Reporting and Sub-editing*, students were asked to watch a convocation ceremony and had to develop a news story in an inverted pyramid style, incorporating all the important points and giving a suitable headline. The basic purpose was to help students to develop a news story.

Tool 4: 'Copywriting in advertising' was an individual activity given to the students enrolled in the course *Advertising of Print and Electronic Media*. They were given the task of writing a headline, slogan and body copy for a print advertisement, which helped to enhance their creative skills.

Tool 5: 'Script writing' was the assignment given in the subject *TV News Reporting & Production*. In this assignment, students were asked to write the script of a documentary 'Inequality in primary education in Pakistan: a comparison of public and private schools'. They were further guided to include points which may make their script interesting.

Results

As noted earlier, of the 1170 students approached for this survey, 658 responses to the questionnaire were received. More specifically, for the different courses, the responses rates were as follows: for the *Introduction to Mass Communication* course, 50 out of 84 responded (59.5%); for the *Communication Skills* course, 565 out of 970 responded (58%); for the *Advertising of Print and Electronic Media*, 16 out of 36 responded (44%); for *Reporting and Sub-editing*, 21 out of 45 responded (47%); and for *TV News Reporting and Production*, eight out of 35 responded (23%). The mean age of the respondents was 23.41; and out of the total of 1170 students, 62% were male and 38% were female.

Table 1   Descriptive statistics for different subjects

Name of subject	Subject understanding		Analytical skills		Interaction		Overall effectiveness	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Introduction to Mass Communication	11.94	2.42	15.88	3.06	10.04	2.68	27.82	5.20
Communication Skills	10.73	2.88	14.60	3.68	10.25	2.80	25.33	6.19
Advertising of Print and Electronic Media	10.50	2.85	15.25	2.11	9.38	2.68	25.75	4.38
Reporting and Sub-editing	11.29	2.79	15.67	2.95	9.95	2.94	26.95	5.38
TV News Reporting and Production	11.22	3.34	16.00	2.50	9.78	2.33	27.22	4.63

N=658

The data show students' more positive response towards subject understanding in the course *Introduction to Mass Communication* (*M*=11.94, *SD*=.2.42) than in the courses *Communication Skills* (*M*=10.73, *SD*=.2.88) and *Advertising of Print and Electronic Media* (*M*=10.50, *SD*=.2.85). For the enhancement of analytical skills, students enrolled in *TV News Reporting and Production* show more positive responses (*M*=16.00, *SD*=.2.50) compared to the other subjects. In the subject *Communication Skills*, students believed that the assignment provided more opportunities to interact with the instructor (*M*=10.25, *SD*=2.80) than in the other subjects. Overall, students' responses were very positive on the effectiveness of scenario-based assignments in all the subjects but a more significant result was found in the courses *Introduction to Mass Communication* (*M*=27.82, *SD*=5.20) and *TV News Reporting and Production* (*M*=27.22, *SD*=4.63).

Table 2   One sample t-test for students' subject understanding and analytical skills

| Variable | Scores | | | | 95 % CI | | |
	M	*SD*	*t* (657)	*p*	*LL*	*UL*	Cohen's *d*
Subject understanding	10.85	2.85	34.61	<.001	3.63	4.07	1.40
Analytical skills	14.75	3.60	33.92	<.001	4.48	5.03	1.32

Note: *CI* = confidence interval. *LL* = lower limit. *UL* = upper limit.

The one sample t-test was carried out to see the significant mean differences in subject understanding and analytical skills of students from the test values of 7 and 10 respectively. The results indicated that there was a significant mean difference from test value in both cases. So, there was an improvement in the subject understanding and analytical skills of students from test values. Cohen's *d* values suggest a high effect size.

Table 3   Independent sample t-test for effectiveness of the scenario-based assignment

| Variable | Yes | | No | | *t* (656) | *p* | 95 % CI | | Cohen's *d* |
	M	*SD*	*M*	*SD*			*LL*	*UL*	
ESA	25.72	6.39	25.48	5.73	.51	.61	-.69	1.17	.04

Note: ESA = effectiveness of scenario-based assignment

The independent sample t-test was carried out to see the significant mean difference between those who had already attempted this type of assignments and those who had not experienced it before. The findings indicated that there was no significant mean difference between these two groups. Cohen's *d* suggests a small effect size.

Table 4 Effectiveness of scenario-based assignment as a predictor of student-instructor interaction

| Variable | Coefficients | | | 95 % *CI* | |
	B	*β*	*SEB*	*LL*	*UL*
Constant	3.22	-	.38	2.48	3.96
ESA	.27	.59*	.01	.24	.30
F	358.09*				
R^2	.35				

Note: *β* = standardize coefficient of regression. *SEB* = standard error of B. *LL* = lower limit. *UL* = upper limit. *R* = .59. *p < .001. ESA = effectiveness of scenario-based assignment

A simple linear regression was carried out to find the significant prediction of student-instructor interaction with respect to the effectiveness of scenario-based assignments. The results indicated that the effectiveness of the assignment significantly predicts student-instructor interaction. The model was significant ($F_{(1, 656)} = 358.09$, $p < .001$). The total R^2 explains the 35% variation in the student-instructor interaction scores due to the effectiveness of these scenario-based assignments ($β = .59$, $p < .001$). The positive sign of beta coefficient means that student-instructor interaction scores would increase .59 units with respect to the effectiveness of scenario-based assignments.

Conclusion

Assignment/assessment activities given to students during their academic sessions are meant to enhance their learning related to a particular course. Directly posed questions merely judge the memory of the students and do not contribute to creating an in-depth understanding of the concepts being asked. In order to overcome this deficiency, academics have come up with the concept of scenario-based exercises. The present study was also an attempt to measure the effectiveness of these types of exercises in courses of a practical nature in an e-learning mode. The results of the study have indicated that scenario-based exercises enhance the students' subject-related knowledge as well as helping them to sharpen their analytical skills.

The students involved agreed that such assignments helped them in visualizing, conceptualizing and comprehending the situations presented. In this regard, the assignment question for the course *Introduction to Mass Communication* asked students to give appropriate captions to pictures and to assess the impact of those pictures as a photo journalist. The responses

showed that this assignment provided the maximum help to the students in creating better conceptual understanding, as well as giving them a hands-on experience of real-time situations in that particular field.

The assumption that students who had prior experience of attempting scenario-based assignments would perceive it as more effective than those who had not attempted such assignments before was not supported by the survey results. One plausible reason could be that those who have previously attempted such assignments might have taken less time to grasp the idea given in them than those who were experiencing it for the first time. One important factor is that the students who had not attempted scenario-based assignments before must have realized that such assignments had helped them to create conceptual understanding of the topic being considered. In this way, students are able to get exposure to the professional field while dealing with real-time situations.

The survey results strongly supported the assumption that scenario-based assignments play a significant role in enhancing student-instructor interaction. Students stated that, while attempting such assignments, they were able to come up with innovative questions to ask the teachers, thus increasing the frequency of student-instructor interaction. Overall, it can be concluded that scenario-based assignments are genuinely helpful for the students of mass communication courses in enhancing their learning abilities while giving them an opportunity to explore the practical side of the courses being taught.

Implications

E-learning approaches are being thoroughly explored around the world and efforts are being made to overcome the limitations of this learning system. The present study can be helpful for academics in developing the study design for disciplines demanding practical exposure and training. It has also provided a platform for researches to further discover such approaches which do not merely test student's memory but also judge their capabilities in analysis and application.

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