

Evaluating the Elements of Electronic Curricula in the Humanities Department of Islamic Azad University

M. Masoumi Fard^{*1}, N. Mousa Poor², M. Seifi³, F. Nateghi⁴

1. Ph.D Student of Curriculum Development, Islamic Azad University, Arak Branch, Arak, Iran

2. Associate Professor of Farhangian University

3. Associate Professor of Islamic Azad University, Curriculum Development Department, Islamic Azad University, Arak Branch, Arak, Iran

4. Assistant Professor of Islamic Azad University, Curriculum Development Department, Islamic Azad University, Arak Branch, Arak, Iran

Received: 12 Jun. 2016;

Accepted: 17 Apr. 2017

Abstract

This study aimed at evaluating the elements of electronic curricula in the Humanities Department of Islamic Azad University. The statistical population of this descriptive survey consisted of all students (4515) and professors (287) of electronic learning of Islamic Azad University. Sample of the study included 354 students and 164 professors who were selected using stratified sampling method with Cochran formula. The research instrument was two researcher-made questionnaires consisting of 59 items based on 5-Likert scale for teachers and students, whose validity and reliability were confirmed. Results showed that, in general, respondents evaluated the current state of the elements of goals, contents, and learning activities better than other elements, while, to them, there was a gap between the current and desirable states of the elements of the curricula. This gap is particularly visible in some elements such as learning materials and grouping.

Keywords

evaluation, quality, curriculum elements, Islamic Azad University

Introduction

In modern world, development of information and communication technology has changed the nature of higher education in universities so that in the last two decades, e-learning opportunities have been further developed and universities have also quantitatively expanded their e-learning courses (Bates, 2010; Conole, 2010; Jaldemark, 2010; Sangra, et al., 2010); however, this has caused some concerns. The existence of a time and space distance between teacher and learner has placed the quality of these courses at a very sensitive place (Rajasingham, 2011; Ivancevich, 2001; Oneil & Palmer, cited in Yeo, 2009) and concern about the educational quality of these programs has become a major issue in the current higher education systems (Mariasingham & Hanna, 2006) because the quality of educational system requires high quality of curricula. Therefore, curriculum arena in the electronic learning system, due to newness, has witnessed a number of issues that each leads to a different understanding of the factors affecting the quality of electronic curricula. Thus, in the area of designing electronic curricula, it seems necessary to properly understand how the elements of e-learning curriculum are changed in order to improve the quality of curricula. Hence, throughout the world, scholars in the higher education system have conducted studies on quality evaluation of e-learning systems and curricula in this field. Hence, throughout the world, scholars from the higher education system have been conducting studies on quality assessment in e-learning systems and curricula.

The results of some of these studies show that providing electronic curricula can enhance capabilities relevant to the current years in students (Miguel & Mc Pherson, 2005: 78; Porter & Tanner, 2008), while the results of some other studies indicate that e-learning curricula have entered into the field of e-learning in a traditional and unchanged manner and their quality is not sufficiently considered and even the effort to consider, evaluate, and modify them is less on the agenda (Um et al,

2005).

Also, since understanding the quality of the curriculum depends on the images of its components, which are called "element", it seems that one of the key challenges for achieving the quality in e-learning curricula is the lack of attention to the quality of its curriculum elements (Seraji et al., Bita). Thinking about the elements of the curriculum has a long history and many achievements. Ralph Tyler proposes four elements (Tyler, 1949). Hilda Taba divides the curriculum components into seven elements (Taba, 1962), and Francis Klein (1991) classifies elements of the curriculum into nine elements of goals, materials, content, learning activities, learning strategies, evaluation, grouping, time, and space or place. Such a classification of the curriculum elements has a wide scope and can contribute to a better understanding of theorizing arena. Hence, the evaluation of the curricula elements is an activity that leads to awareness about the desirability of the electronic curricula, shortcomings, problems, limitations, and the judgment of their value (Ghaderi & Shekari, 2014).

Reviewing the studies conducted in the area of e-learning quality evaluation suggests that research in this field is new and the results of most studies indicate that some of the elements of the curriculum have good quality, while some other elements are in an unfavorable state. It seems that attention to the quality of all elements in the electronic curricula has remained neglected; for example, the results of a study conducted by Rabiee, Mohebbi Amin, and Khajeh Lo (2010) on the evaluation of quality of e-learning elements of Ferdowsi University of Mashhad showed that the quality of the elements of goals, content, educational materials, learning strategies, time, space, and evaluation are at a desirable level, while the quality of the element of learning activities is moderate and the element of grouping is at unfavorable level. Also, the results of Ghaderi and Bakhtiari's study (2014), which evaluated the quality of the elements of the curriculum in Kashan University, indicated that while faculty evaluated the quality of the elements of the curriculum fairly desirable, students evaluated the quality of these elements at an unfavorable level, that shows there is a gap between the evaluation of the teachers and students.

Teng-Chiao Lin and colleagues (2014) also focused on evaluating the elements of e-learning curriculum in a university in Taiwanese. The results of their study showed that the quality of these elements is relatively favorable from the viewpoint of students and professors, they also claimed that the transparent expression of goals, the selection of appropriate educational materials, and teaching-learning activities were effective in improving the quality of online curricula.

The results of the study conducted by Wiphasith et al. (2016), entitled "evaluation of the elements of e-Learning curriculum for learning English", showed that the quality of the elements of the studied curriculum was high moderate to professors, while to students, the quality was moderate.

In Iran, for nearly a decade, numerous public and private universities have entered into e-learning arena. The Islamic Azad University, which is the focus of this study, has also enjoyed these changes, and since a number of years ago, it has been widely entered into the field of e-learning courses. Therefore, it seems that the evaluation of its electronic curricula, due to its novelty, will lead to a different understanding of the factors affecting the quality of the electronic curriculum. Thus, the purpose of this study is to evaluate the quality of the elements of the electronic curriculum of Humanities in Islamic Azad University, and it seeks to evaluate the quality of the present and desirable states of the electronic curricula from the viewpoints of professors and students who are the main audience of these educational services (Rajasingham, 2011).

Research Method

This study is an applied research and is descriptive-survey method in terms of implementation. The statistical population of the study consisted of all students (4515) and professors (287) in e-learning system of Islamic Azad University in the academic year of 2016-2017. Sample of the study included 354 students and 164 professors who were selected using stratified sampling method through Cochran formula. To collect data, two researcher-made questionnaires including 59 items and based on a 5-Likert scale, which evaluated the current and desirable states of elements of the curriculum, were used. The questionnaires were prepared based on the content of the interviews with the experts and included the respective indicators to measure the state of 9 elements of the curriculum: objectives with 6 questions, educational materials with 10 questions, content with 9 questions, learning activities with 5 questions, learning strategies with 7 questions, grouping with 3 questions, time with 5 questions, place (or space) with 3 questions, and evaluation with 11 questions.

Face (content) and construct validity of the questionnaires were confirmed through expert judgment and confirmatory factor analysis, respectively. The reliability of the questionnaire was assessed by Cronbach's alpha as 0.765 for the students' questionnaire and 0.789 for the professors' questionnaire, which were above 0.70 and acceptable. In order to answer the research questions, descriptive and inferential statistics (independent and paired-samples t-tests) were used with SPSS software v.23.

Findings

In this study, data analysis was done using descriptive and inferential statistical techniques, which will be described in the following.

Table 1 shows the demographic information of the study samples. As is seen, 75 percent of the professors are male and 25 percent are female. Also among students, half of them (50 percent) are male and half (50 percent) are female. As for the age range of the respondents, among the professors, 36% of participants aged 26-35 years old, 37% of them were between 45-36 years old, 18% were 55-56 years old, and 9% of them were 55 years old and above. Among the students, 49% of them were in the age range of 26-35, 38% in 36-45 age range, 10% in 55-46 range, and 10% were 55 years old and above. In addition, 84% of the professors were married and 16% was single. Also, 81% of the students were married and 19% was single.

Table 1. Demographic Information of Samples

		professor		student	
		N	P	N	P
gender	male	123	75%	180	50%
	female	41	25%	174	50%
age	26 years-35	58	36%	173	49%
	36 years-45	61	37%	135	38%
	46 years-55	30	18%	35	10%
	55 years and above	15	9%	11	3%
Marital status	married	138	84%	288	81%
	single	26	16%	66	19%
Total number		164	100%	354	100%

Also, normality of data related to the study variables was checked through Kolmogorov Smirnov test, and the results showed that the distribution of data was normal. Therefore, for examining research questions, parametric tests were used.

Question 1: What is the desirable state of each element of the electronic curriculum in the Department of Humanities at Islamic Azad University?

To answer this question, independent samples *t*-test was used. The results are shown in Table 2.

Table 2. independent samples t-test to check desirable state of each element of e-curriculum

(Sig)Sig level	Inferential statistic		Expected Mean	Descriptive statistic		variable
	(df) DF	t		SD	mean	
.,.,.	783	47,017	3	.,77	4,20	goals
.,.,.	783	40,710	3	.,73	4,14	Educational materials
.,.,.	783	43,304	3	.,71	4,14	Content
.,.,.	783	30,312	3	.,77	4,04	Learning activities
.,.,.	783	37,103	3	.,77	3,97	Learning strategies
.,.,.	783	29,107	3	.,17	3,97	Grouping m
.,.,.	783	41,431	3	.,77	4,00	Time
.,.,.	783	40,120	3	.,73	4,14	Educational space
.,.,.	783	37,003	3	.,73	3,90	Evaluation

Results of independent samples t-test to check desirable state of each element of the e- curriculum of the Humanities in Tehran's nongovernmental universities indicate that the students and professors believe that the quality of these elements should be greater than what it is, because the average quality of all elements of the electronic curricula of the Islamic Azad University is more than the expected mean (3). The results of the desirable state of the curriculum elements indicate that the improvement of the quality of the elements of goals, materials, content of the electronic curriculum, and the place of education in the electronic curriculum is taken into consideration more than other elements by professors and students. In addition, improving the quality of the elements of evaluation and grouping in the curriculum is taken into account by the professors and students less than other elements.

Question 2: What is the current state of each element of the e-curriculum in the Department of Humanities of Islamic Azad University?

To answer this question, independent samples t-test was used. The results are shown in Table 3.

Table 3. independent samples t-test to check the current state of each element of e-curriculum

<i>Inferential statistic</i>				<i>Expected mean</i>	<i>Descriptive statistic</i>		<i>variable</i>
<i>Sig level</i>	<i>DF</i>	<i>df</i>	<i>T</i>		<i>SD</i>	<i>mean</i>	
.,.,.)	٦٨٣	١٠,٥٥٥	٣	٣	٠,٧٣	٣,٣٤	<i>goals</i>
.,.,.)	٦٨٣	-٥,٥٦٧	٣	٣	٠,٧١	٢,٨٢	<i>Educational materials</i>
.,.,.)	٦٨٣	١٢,٠٩٩	٣	٣	٠,٦٨	٣,٤٦	<i>Content</i>
.,.,.)	٦٨٣	٨,١١٠	٣	٣	٠,٨٤	٣,٤٣	<i>Learning activities</i>
.,.,٤	٦٨٣	٢,٨٩٠	٣	٣	٠,٧٤	٣,٢٢	<i>Learning strategies</i>
.,.,٢	٦٨٣	-٣,١٨٤	٣	٣	١,٠٨	٣,٠٩	<i>Grouping</i>
.,.,.)	٦٨٣	٥,٠٠٩	٣	٣	٠,٧٩	٣,٢٧	<i>Time</i>
.,.,.)	٦٨٣	٤,١٦٩	٣	٣	٠,٩٠	٣,٢٣	<i>Educational space</i>
.,.,.)	٦٨٣	٣,٥٤٧	٣	٣	٠,٦٥	٣,٢٨	<i>Evaluation</i>

Goals: Based on the results of independent samples t-test ($t = 10.555, P < 0.01$), it can be said that the quality of the goals of electronic curriculum is high because the mean quality of goals (3.34) is higher than the expected mean (3).

Educational materials: Based on the results of independent samples t-test ($t = -5.567, P < 0.01$), it can be said that the quality of the educational materials of electronic curriculum is low because the mean quality of the educational materials (2.82) is lower than the expected mean (3).

Content: Based on the results of independent samples t-test ($t = -12.099, P < 0.01$), it can be said that the quality of the content in electronic curriculum is high because the mean quality of the content (3.46) is higher than the expected mean (3).

Learning activities: Based on the results of independent samples t-test ($t = 8.110, P < 0.01$), it can be said that the quality of learning activities in electronic curriculum is high, because the mean quality of learning activities (3.43) is higher than the expected mean (3).

Learning strategies: Based on the results of independent samples t-test ($t = 2.890, P < 0.01$), it can be said that the quality of learning strategies in electronic curriculum is high because the mean quality of learning strategies (3.22) is higher than the expected mean (3).

Grouping in: Based on the results of independent samples t-test ($t = -3.184, P < 0.01$), it can be said that the quality of grouping in electronic curriculum is high intermediate because the mean quality of grouping (3.09) is a bit higher than the expected mean (3).

Time: Based on the results of independent samples t-test ($t = 5.009, P < 0.01$), it can be said that the quality of time in electronic curriculum is high because the mean quality of time in electronic curriculum (3.27) is higher than the expected mean (3).

Space: Based on the results of independent samples t-test ($t = 4.169, P < 0.01$), it can be said that the quality of space in electronic curriculum is high because the mean quality of space in electronic curriculum (3.23) is higher than the expected mean (3).

Evaluation: Based on the results of independent samples t-test ($t = 3.547, P < 0.01$), it can be said that the quality of evaluation in electronic curriculum is high because the mean quality of evaluation in electronic curriculum (3.28) is higher than the expected mean (3).

Question 3: What is the current state of each element of the electronic curriculum of Islamic Azad University compared to its desirable state?

First, to investigate the current state of each element of the electronic curriculum of Islamic Azad University from the professors and students' viewpoints paired samples t-test was used with the results shown in Table 4.

Table 4. Paired samples t-test for the comparison of the current and desirable states of each element of e-curriculum

Analytical statistic		Descriptive statistic		state	variable	group	
(Sig)	(df)	t	SD				mean
, , , , 1	306	-28,377	0,09	3,24	current	Quality of curriculum elements	professors
			0,49	4,18	desirable		
, , , , 1	376	-25,855	0,07	3,00	current		students
			0,76	3,96	desirable		
, , , , 1	683	-37,621	0,09	3,11	current		total
			0,70	4,06	desirable		

Professors: The results of t-test ($t=-28.377$, $P < 0.01$) indicate that there is a significant difference between the quality of the elements of electronic curriculum of the Humanities in the current and desirable states, that is professors evaluated the mean quality of the elements of electronic curriculum in the current state (3.24) less than the mean quality in the desirable state (4.18).

Students: The results of t-test ($t=-25.855$, $P < 0.01$) show that there is a significant difference between the quality of the elements of electronic curriculum of the Humanities in the current and desirable states, that is students evaluated the mean quality of the elements of electronic curriculum in the current state (3.00) less than the mean quality in the desirable state (3.96).

Also, to the current and desirable states of each element of the electronic curriculum of Humanities between the professors and students, paired samples t-test was used which led to the results shown in Table 5.

Table 5. Paired samples t-test for the comparison of the current and desirable states of each element of e-curriculum

Analytical statistic		Descriptive statistic		state	variable	group	
(Sig)	(df)	t	SD				mean
, , , , 1	376	-20,788	0,78	3,34	current	goal	students
			0,72	4,13	desirable		
, , , , 1	306	22,304	0,78	3,20	current		professors
			0,50	4,28	desirable		
, , , , 1	683	-29,931	0,73	3,28	current		total
			0,76	4,20	desirable		
, , , , 1	376	-25,407	0,79	2,70	current	Educational materials	students
			0,83	3,98	desirable		
, , , , 1	306	-27,224	0,71	3,01	current		teachers
			0,52	4,34	desirable		
, , , , 1	683	-37,835	0,71	2,84	current		total
			0,73	4,14	desirable		
, , , , 1	376	-20,511	0,70	3,20	current	electronic curriculum	students
			0,74	4,00	desirable		

0,001	306	-19,880	0,79	3,40	current		professors
			0,09	0,79	desirable		
0,001	683	-28,414	0,78	3,31	current		total
			0,78	4,14	desirable		
	<i>Analytical statistic</i>	<i>Descriptive statistic</i>					
<i>(Sig)</i>	<i>(df)</i>	<i>t</i>	<i>SD</i>	<i>mean</i>	<i>state</i>	<i>variable</i>	<i>group</i>
0,001	376	-17,033	0,76	3,14	current	Learning activities in electronic curriculum	students
			0,80	3,94	desirable		professors
0,001	306	-17,448	0,91	3,40	current		total
			0,70	4,10	desirable		
0,001	683	-24,030	0,84	3,26	current		total
			0,77	4,04	desirable		
0,001	376	-21,448	0,70	2,90	current	Learning strategies in electronic curriculum	students
			0,70	3,86	desirable		professors
0,001	306	-21,714	0,73	3,30	current		total
			0,09	4,09	desirable		
0,001	683	-29,780	0,74	3,08	current		total
			0,76	3,96	desirable		
0,001	376	-19,128	1,03	2,72	current	Grouping in electronic curriculum	students
			0,91	3,77	desirable		professors
0,001	306	-20,100	1,03	3,17	current		total
			0,91	4,19	desirable		
0,001	683	-27,114	1,08	2,86	current		total
			0,86	3,96	desirable		
0,001	376	-19,706	0,77	3,08	current	Time in electronic curriculum	students
			0,72	3,99	desirable		professors
0,001	306	-19,077	0,81	3,23	current		total
			0,08	4,12	desirable		
0,001	683	-27,380	0,79	3,10	current		total
			0,76	4,00	desirable		
0,001	376	-19,900	0,88	3,14	current	Educational space in electronic curriculum	students
			0,81	4,10	desirable		professors
0,001	306	-19,380	0,94	3,14	current		total
			0,71	4,19	desirable		
0,001	683	-27,760	0,90	3,14	current		total
			0,73	4,14	desirable		
0,001	376	-21,802	0,74	2,91	current	Evaluation in electronic curriculum	students
			0,74	3,81	desirable		professors
0,001	306	-21,197	0,09	3,30	current		total
			0,09	4,02	desirable		

۰,۰۰۱	۶۸۳	-۲۹,۷۲۰	۰,۶۵	۳,۰۸	<i>current</i>	<i>total</i>
			۰,۶۴	۲,۹۱	<i>desirable</i>	

As is seen in the Table, there is a significant difference between the quality of the elements of electronic curriculum of the Humanities in the current and desirable states from the professors and students' viewpoints. In other words, students and professors believe that there is a gap between the quality of the elements in the current and desirable states.

The comparison of the means indicates that the highest gap between the current and desirable states exists in following the elements of the electronic curriculum of Humanities, respectively:

1. Educational materials
2. Grouping
3. Educational space
4. Goals
5. Time
6. Learning strategies
7. Content
8. Evaluation
9. Learning activities

Discussion and conclusion:

This research was conducted with the aim of evaluating the quality of elements of the electronic curriculum of Islamic Azad University through a descriptive and survey method. The results of independent samples t-test for evaluation of the quality of the elements of the electronic curriculum of the Humanities indicate that the students and professors believe that the quality of all elements in a desirable state should be higher than the current one, i.e. higher than the expected mean (3). It is also worth mentioning that in general, the professors evaluated the quality of each element higher than the students. These findings are in line with the researches done by Noorollahi (2010), Rabiee, Mohebi Amin and Khajeh Lo (2010), Ghaderi and Shekari (2014), Blog and Wikis and Waritarus (2008), and Oneil and Palmer (as cited in Yeo, 2009). To explain this finding, it can be said that professors, due to more expertise and experience in their major and the corresponding curriculum, may have a closer attention to the desirable state of the electronic curriculum elements and in their mind, there is a clearer picture of the desirable state of the quality of the elements. While students, due to less experience and expertise, have a more limited perspective on the desirable state of the electronic curriculum elements.

Also, regarding the second research question, the results of independent samples t-test for examining the current state of the electronic curriculum elements of the Humanities in Islamic Azad University showed that in general, respondents evaluated the current state of the elements of goals, content, and learning activities better than the other elements, while, they evaluated the quality of the elements of educational materials, grouping, evaluation and learning strategies lower than the other elements. These findings are consistent with those of Seraji (2007), Fathi, Ejargah and Shafiei (2007), Rabiee, Mohebi Amin and Khajeh Lo (2010), Ghaderi and Shekari (2014), and Lukart et al. (2009). To explain these findings, it can be said that seemingly, in Islamic Azad University, the flexibility of goals, matching goals with the interests of students, and the appropriateness of goals with the individual and social needs of students are more emphasized which led to an increase in the quality of the current state of the goals. Also, regarding the content, it can be said that in the Islamic Azad University, determining of the content of the courses according to the syllabus approved by the Ministry of Science, Research, and technology is the responsibility of the related professors. Therefore, the professors can modify and update the content of textbooks and to do so, they do not need administrative time-consuming bureaucracies. Also, regarding the learning activities in the curriculum, it can be said that since the classes of the Islamic Azad University are based on 16 class sessions, the professors and students have enough time to conduct class activities, which has led to an increase in the quality of learning activities than other elements of the electronic curriculum.

Regarding the third research question, the results of paired samples t-test showed that there is a significant difference between the quality of the elements of electronic curriculum of the Humanities

in the current and desirable states, i.e. there is a gap between the elements of the electronic curriculum between “what is” and “what should be”. This gap is particularly visible in some elements such as learning materials and grouping. The findings are consistent with the results of studies done by Agha Kasiri (2006), Noorollahi (2010), Rabiee, Mohebi Amin and Khajeh Lo (2010), and Ghaderi and Shekari (2014)..

In explaining these findings, it can be said that in e-learning contexts of Islamic Azad University, diverse educational materials seem to be less used; therefore, in order to enhance the quality of this element, more quality educational materials can be provided to learners in the form of self-study printed texts, radio and television training programs for each lesson, audio and visual collections, and questions for self-examination through educational, multimedia, and digital and interactive centres with a variety of tools. Increasing the access to digital libraries, scientific databases, e-learning communities, and scientific websites will also help to increase the quality of this element. Also, since e-learning is a collaborative learning process, with the emphasis on student group activities, the quality of this element can be increased to bridge the gap as much as possible.

According to the above discussion, in general, it seems that the quality of the majority of the elements of the electronic curriculum in the University under investigation, is far from its desirable state. Therefore, it is suggested that the elements of the electronic curriculum of Islamic Azad University be revised and quality elements be replaced by the current elements in order to increase the quality of the electronic curriculum, and consequently the Humanities in the University.

In the end, it should be noted that since limitations are an integral part of any study, this study also had its own limitations among which the lack of full cooperation of some professors and students in answering the questionnaires can be mentioned that caused spending much time in this stage.

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