

Technical Quality of Electronic Content in Virtual Universities of Khaje Nasir Toosi and Shiraz According To SCORM Standards

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Abstract

The present survey has been carried out by analyzing the quality of e-content in Virtual Universities of Khajeh Nasir Toosi and Shiraz in 2011, through descriptive research and analytic study according to SCORM standard. The statistical population consists of all the BA and MA students of virtual electronic courses in Khajeh Nasir Toosi and Shiraz universities, the number of which reaches to 125 students in each university and the total number of 250 sample students for both. A researcher-made questionnaire was used. For the validity (content) determination, the discretion of masters in this field has been taken to account. And the reliability rate of the questionnaire estimated by Cronbach's alpha and SPSS software is 93%. Data analysis is achieved through descriptive and deductive statistics (t-student one-sample t-test for significant difference). As shown in the results, the average of the survey's main question is 3/38 and in assurance degree of 95%, it can be claimed that there is a significant difference between the sample mean and the theoretical mean; and according to the aforementioned students, the level of SCORM performance in their universities is above the average and in a desirable condition.

Key words: E- Learning, E- Content, Quality of Content, SCORM Standard.

Introduction

A Fundamental change was occurred in comprehensive plan on training curriculum and educational planning by agencies of the Islamic Republic of Iran in 2009. One of principles of the national Curriculum and training, lifelong learning [1] and a way to making lifelong learning is contingent upon development of the Internet and the World Wide Web (WWW). In 2013, more than 7.2 billion people, according to 39% of the global population are using the Internet. 31% of the population of developing countries and developed countries 77% of the population of Internet users are online [2]. With the increasing use of Internet technology, the latest methods of training, e-learning in education plays a key role change. The scope of e-learning in the Islamic Republic of Iran, how far the mechanisms and tools to help system is the presence and traditional methods of teaching (blended learning) or when the trustee itself is a learning process, development is increasing [3]. The use of virtual learning systems in the world of modern communications imperative not an option, so it is better to we undertake 1- the analysis of training needs and the structure of the complex (constraints and opportunities) by one of the methods of learning, to improve the quality setting. 2- Universities, companies and institutions should strongly consider standardizing the content and educational content. 3- Given the constraints that lie ahead, consider standardization will enhance Adaptability and the ability to aggregate content in the standard system [4]. Hence, development of e-learning in education entail for infrastructure and quality content. In development and application of ICT in education, the dominant view was directed to the field of infrastructure and practically neglected field of quality e-content localization [5]. The content and quality of electronic courses at the universities have been ignored and unfortunately little attention is being considered as a main issue. Content serves as a critical component of success in the implementation of e-learning and learners is a priority for [6] and the quality of the field of e-learning content [7] quality production of special importance. Why that both quantitative (number of training, number of courses) and qualitatively one of the most important factors in determining the priorities and strategies needed to build an educational system [8] and The knowledge is transferred to the learner And if possible a system that is going to do the work of a teacher and social performance of the Internet and its widespread use in education, Easy access to many educational content on the web has provided, of course, re-use and recovery of such content is not easily possible. A simple way is to present learning content to the e-learning system. A simple way to present learning content to any standard e-learning system is running. Including existing standard sharable learning content, is standard SCORM. SCORM clearly defines a framework for the content that is durable, portable, reusable web-based learning content, Interoperability with other systems (can be connected to peripheral

devices such as printers, etc.) is accessible. SCORM itself really is not a standard set of specifications and standards produced by the Management Information System, Institute of Electrical and Electronics Engineers [10]. SCORM was created to guide the six key needs and continued Accessibility: the reference model shareable courseware inaccessible situations, creates content that is available. Adaptability: designed structure, the need for teachers and organize its own. Affordability: the reference shareable courseware lower prices and less time learning content transfer. Durability: learning content design, configuration, planning and the evaluation needs to keep. Reusability: the standard learning content development tools will be in a position to set and can be used at other times with different tool sets. Reusability: learning content standard used in different applications and fields [11]. With the growth of e-learning and competitive market for higher education is also an opportunity to once again educate about e-learning with traditional education quality account [12]. This is not possible unless the design of the training course, on the quality of attention and the factors that affect the quality of the (evaluation, usefulness, and reusability) introduce [13]. Research and studies have been conducted in this area that can be used to study [14] can be mentioned. In conclusion investigate the alignment of non-alignment of research results will be examined. What is outstanding is found to be lack of quality study of virtual content according to SCORM including number of factors, including adaptation, financing, retention, reward ability, reusability. The present research aims to evaluate quality of the implementing e-learning at Khaje Nasir Toosi and Shiraz universities based on the technical standard of electronic content with descriptive and analytical study in 2011. The subjects included all virtual students in e-learning of Khaje Nasir Toosi and Shiraz Universities at undergraduate and graduate level. Because the survival of virtual universities primarily depends on the trust and confidence of stakeholders, especially students stakeholders also increasingly depends on the quality of the university so the quality of important factors affecting the creation, maintenance and development of the university virtual. Asghari Moghaddam and Baghbani Parizi (2009, p. 1) [15] also found that in all areas the standard most important factor for maintaining quality, gain the trust of customers and clients and adaptation actions and measures, the use of this standard in this study, recall this other than the standard is the standard, although the specified standard SCORM needs to be refined and expand its localization [8]. Now it can be used as a model to provide high quality learning used [16]. The results of this study can be used for learners who want to study at the university through their virtual helpful. Also for those involved in virtual universities in order to improve the deficiencies and also become aware of how effective learning.

Materials and methods

This research was conducted in descriptive and analytical manner. Using this method we can review and analysis curriculum. The aspects of the curriculum are analyzed [17].

The study subjects included all eligible students in e-learning and Shiraz and Toosi universities in undergraduate and graduate level. Because of the virtual learning system, Student were available and only at the time of examination, from around the country attended college in the fall because of the convenience sampling was used. 125 virtual students from each university (Toosi and Shiraz) were selected, for which a total of 250 students have been selected.

To collect data a self-made checklist based on standard components of SCORM, through visiting the site ADL (Advanced Distributed Learning) United States Department these components are: accessibility, Adaptability, Affordability, Durability, ability performance, reusability. The proposed study various sources and organizations involved in local content production in three components including Content Management System, Sequencing, intelligent run was added and the checklist of 54 questions with the whole five-point Likert and reliability of the checklist approved a number of expert instructors, including supervisors and advisors, as well as a number of IT professionals have the training. Reliability was controlled using Cronbach's alpha coefficient equal to 93% of the available sample.

Results

Table 1 briefly present data on assessment of students on checklist. Theoretical mean is (3) is not mentioned due to it is common.

Table 1: assessing student in checklist phrases

questions	components	average	Calculated t	sig	Df
1	Does the level of Interoperability with other systems in terms of Shiraz and Toosi University is desirable?	3.88	14.62	0.000	125
2	Do measuring the level of implementation of the accessibility of students in Shiraz and Toosi University is desirable?	3.58	7.94	0.000	117
3	Do measuring the level of Adaptability of students in Shiraz and Toosi University is desirable?	2.88	1.81-	0.073	116
4	Do measuring the level of Affordability of students in Shiraz and Toosi University is desirable?	3.09	1.27	0.206	120
5	Do measuring the level of Durability of students in Shiraz and Toosi University is desirable?	3.27	3.84	0.000	117
6	Do measuring the level of Reusability students in Shiraz and Toosi University is desirable ?	3.26	3.75	0.000	119
7	Do measuring the level of Content Management System of students in Shiraz and Toosi University is desirable?	3.22	3.05	0.003	127
8	Do measuring the level of Sequencing of students in Shiraz and Toosi University is desirable?	3.14	2.09	0.039	123
9	Do measuring the level of intelligent implementation of students in Shiraz and Toosi University is desirable?	3.56	7.98	0.000	127
General question	Do measuring the level of SCORM standard of students in Shiraz and Toosi University is desirable?	3.38	6.12	0.000	76

As is clear from Table 1, the average component-level performance, availability, retention, re-use, Content Management System, Sequencing, intelligent performance as 3.88, 3.58, 3.27, 3.26, 3.22, 3.14, 3.56 is obtained. The results obtained indicate that t degrees of freedom above for these components are 14.62, 7.94, 3.84, 3.75, 3.05, 2.09, and 7.98, which significant at 95%. Therefore, the implementation of the SCORM standard in Shiraz and K.N. Toosi universities 95% higher than the average and is desirable. Average component Adaptability and Affordability to the 88/2, 81/0 is obtained. Significant test results indicate that t obtained for these components to 81/1, 27/1 is not significant at the 95% level. Therefore it can be claimed with 95% confidence that the students of Shiraz University and K.N. Toosi, about the implementation of Adaptability and financing are identical and statistically, there is little difference between the sample mean (2.88), (3.09) with an average theoretical (cut-off point: 3) due to the accident and measurement error, so in University of Shiraz and K.N. Toosi, the implementation of the Adaptability are in moderate manner and relatively favorable. General question average was 3.38. Result of significance test was calculated to be 6.12 in degree freedom at significance level 95% higher than average.

Discussion and Concluding conclusions

Fundamental change in the education system and universities to lead to a change the drastic revolution in education system have led to a great changing ordinary schools to universities to electronic and smart schools and e-learning to address the shortcomings of traditional education and the need for a new way to keep pace with advances in science and technology. Thus, the growth of this type of training makes careful research and e-learning is serious about quality. University of virtual survival primarily depends on the trust and confidence of stakeholders, especially students and increasing stakeholder confidence also depends on the quality of the university. So the quality of important factors affecting the creation, preservation and development of virtual universities. In this regard, the survey seeks to achieve an answer to the question whether the measure SCORM standard performance level of students at the University of Shiraz and Kh. N. Toosi (with components: accessibility, Adaptability, Affordability, Durability, the Reusability, reusable, Content Management System, Sequencing, intelligent performance) is desirable or not. According to data obtained from the study, the average component access and manage content 3.58, 3.22 obtained statistically also is significant and it can be concluded from K.N. Toosi and Shiraz university students access and manage content at a higher level than the average and good. In this section the results with the findings of a Momeni Rad (2010) [14] the quality of the field of information technology, e-learning course K.N.Toosi University of Technology based on e-learning standards are in line with results of analytical review. To 38/3 research also showed that average general question that is statistically significant (12/6, t), and therefore we can say with 95% confidence that the implementation of the SCORM standard of university students in Shiraz and K.N. Toosi is desirable. The results confirm findings of [11].

Their evaluation of virtual training programs from the perspective of students and faculty that the faculty and tradition of educational content to a large extent has overcome the expectations of students and teachers. The best of our knowledge, component compatibility, Affordability, Durability, the Reusability with other systems, reusable, the sequence of entries, intelligent performance have not been studied in other research. Review and evaluation of the processes necessary for the success of the program is often either forgotten or put aside-is. E-learning as a method of education is no exception. Analytical review program, which provides the conditions in which educational systems and practitioners to help in rational judgment and are better able to respond to their needs and society is of great importance. Therefore it is recommended 1. Educational institutions, especially universities, using the model fits the educational and cultural structure of the country, in designing e-learning environments based on international standards after deciding 2. Custom content Virtual University the companies assume that the global standards in the field of e-learning content that provides a consistent 3-up with low quality and not derived from sources that do not have scientific validity and introduced 4- skilled experts be elected. Finally, other standards such as SCORM standard world in need of modification, and expands, but now it can be used as a model to provide high quality learning used. In-depth study of each of its components is right way to achieve it. Should not wait for its compatibility with the existing conditions remained components and criteria. Officials and administrators, if you go this way, virtual spaces with other universities on technical and hardware developed countries there will be more every day. As is evident, from time to time to add a little acceptance and learning quality will be reduced. The university system should be based on understanding the characteristics and needs of information technology and internal information on the development of faster and uninterrupted in the world, it is the urgent requirement of living, does not behind the slogan of the need for focus all-inclusive, provide appropriate services.

Below are some tips which can contribute to richness of these courses.

1. Paying attention of the authorities to increase the quality of education, training and learning
2. Inspiring from e-learning practitioners experience with other experts
3. Continuous measurement standards related to the implementation of e-learning including standard reference model shareable courseware
4. The continuous study of the latest achievements gained in the field of presentation and distribution of content and adapting it to local conditions if the results can be better used to implement e-learning system.

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