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E-EDUCATION IN MEDICAL UNIVERSITY: THE FACULTIES' READINESS

Education

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ABSTRACT

E-Education is an evolved form of the old methods of teaching and learning that using information technology proposed and Forward as fast as the preferred method of learning was introduced in the era of knowledge. The present study was performed in order to Readiness of faculties for Implementing of E-Education in Zahedan University of Medical Sciences. This descriptive cross-sectional study was carried out using a questionnaire to assess the readiness of 350 faculties on 2018. In order to implement e-education, the readiness of faculties in terms of cultural dimension and their computer skills and human resource dimension were good, but the readiness of more than half of the faculties for information technology infrastructure was in weak level. It is recommended that, the faculties' empowerment courses are essential, and managers should have a plan for required technological infrastructure before implement e-education.

KEYWORDS

E-Education, Faculty, Information Technology

INTRODUCTION:

The growing population, inadequate educational opportunities, the advent of information and communication technology (ICT), and the growing desire of centers and educational organizations to use e-education has led e-education to be at the center of attention for all and as one of the most dynamic approaches to delivering educational services (Tinio, 2015). Today, e-education is becoming an emerging trend in education as well as an important strategy for the promotion of education in all major countries of the world (Chu & Liao, 2011).

E-education is one of the new methods of teaching based on ICT that with focusing on human as an active learner, can transform all forms of education and learning in the 21st Century and also, terminate to challenging the amount of socially demand for education and lack of adequate educational resources (Dooley, 2012; Garrison & Anderson, 2017).

Many universities and educational institutions around the world have been designing and presenting programs in e-education and e-learning courses for response to the growing need for education enthusiasts. The results of the Naghavi (2009) study showed that the teachers had a positive attitude toward e-education as a teaching aid tool, and the feeling of usefulness and self-esteem of teachers was the most important factor in their desire to the use of e-education. Also, the results of the Zolfaghari (2008) study showed that 66% of faculty members had a positive attitude. Statistical analysis showed a significant difference in terms of age, gender, and teaching experience with the attitude toward teaching with the combination of electronic education method, so that a more positive attitude was associated with greater readiness. Huang (2007), also showed that the behavioral tendency to use e-learning is affected by perceived usefulness and self-efficacy and professors and students have a positive attitude to use of e-learning systems. Also, Jamatsho (2007) showed that most of students (87%) didn't have enough access to information and communication services, and only 35% of students reported having easy access to computers.

The use of e-education leads to increased learning opportunities, easy access to educational resources, accelerated access to updated information, consolidation of the role of guidance for teachers, continuous teacher guidance for learners, and lifelong access to information (SobhaniNejad, 2009). Currently, the university's educational system is such that students do not have permanent access to lecturers, and students cannot be trained or answer their questions whenever they need to learn in a specific field. According to the existing educational system, Educational interactions remain unchanged at a level (Starrs, 2003). The existing teaching methods do not provide the students information needs quickly, and they are not enough flexible for different student conditions and cannot motivate the students (Peters, 2007). The purpose of this study was to investigate the readiness of faculty members of Zahedan University of Medical Sciences (ZAUMS) to implement e-education in order to help managers and decision makers to implement successful e-education.

MATERIAL AND METHOD:

The present study was conducted in a descriptive-cross-sectional study in the second half of 2018. The research population consisted of all faculty members of ZAUMS (350). All professors were present in the research. The data gathering tool was a researcher-made questionnaire in four dimensions: culture, human resources, computer skills, and technology infrastructure. Validity of the questionnaire by content validity method was verified by experts and professors. To determine the reliability of the questionnaire, an open-test method was used. The questionnaire was distributed among a group of 30 people from the research community and after 10 days the questionnaire was again distributed among the same people. The results were compared and reliability was confirmed by Cronbach's alpha coefficient of 0.83. Finally, the results of the study were presented using the SPSS software Ver.16.

RESULTS:

According to the research findings, among the 350 contributing faculties, 61.1% of male and 39.9% were female, and 31.1% of them had a master's degree and 68.9% had a Ph.D. And higher.

- The research findings showed that most faculty members accept e-education as a complementary teaching method (61.3%) and 78.5% of them are interested to new educational methods in teaching. In general, the readiness of faculty members of ZAUMS in terms of cultural components for implementation of e-education with an average of 3.38 are in a good level.
- 51.7% of the faculties are eager to provide their lessons as e-education and 60% of them are familiar with basic IT skills, but 74.3% of them believed that for the more accurate implementation of e-education, need to IT training courses is more that hold faculties more fully trained for IT topics. In terms of human resources dimension, in general, faculties are generally well-equipped with a good average of 3/18.
- Faculties have good skills in using PowerPoint and Word software, working with the Internet, and search engines, but they are weak in using Access and Excel software and Web applications. Totally, the computer skills level of faculty members with the average of 3/568 is classified into a good level.
- In the context of IT infrastructure, more than 80 percent of faculties have personal computers and high-speed Internet access within the university, but most faculty members have inappropriate condition in access to the Internet outside the university (64.3 percent), access to hardware facilities (74.3%) and software (54.3%) and 84.3% of them consider safety and network security as inappropriate for implementation of e-education. Therefore, in term of IT infrastructure, more than half of the faculties (52.3%) are in a weak level.

DISCUSSION:

- The results indicates that the average cultural readiness of the faculties is 3.38 (out of 5), which indicates a good level faculty members' readiness. This result is in line with the results of Darabi

(2013). Contrary to the current research, Montazer (2009) concluded that the most readiness of the professors are in the field of equipment and their least readiness are related to the cultural index.

- The average of computer skills of ZAUMS faculties was 3.56 (out of 5), which indicates that faculties' computer skills are in a good level. Of the items related to computer skills, Internet familiarity with the mean of 4.7 was the highest, and Excel's working skill was 2.59, Access skill at 2.9, and familiarity with the Web base programs with a mean of 2.64 have the lowest values. Rezaei Rad (2012) concluded that the knowledge of working with computer and Internet is moderate and Mehdizadeh (2010) rated the computer knowledge and skills of faculty members as satisfactory level.
- The human resource readiness of ZAUMS was evaluated in intermediate level with an average of 3.18 (out of 5). In this section, most professors believed that there was not enough time and time to improve their education and that IT training courses should be held for them. Contrary to the current research, Rahimi-Dost and Razavi (2012) concluded in their research that most of the faculties had enough time and time to improve their education, and the university was in a proportional position to implementing e-education programs, and Montazer (2009) in his research, the average readiness of the university in this field was 4.8 out of 10, which is a intermediate score of readiness for students, faculties and staff.
- The ZAUMS IT infrastructure was assessed as inappropriate level. The most of the faculties had access to personal computer and also high-speed internet within the university, but believed that, at present, the safety and security of the network to implement e-education is inappropriate. Rahimi Dost and Razavi (2012) concluded that most of the faculties had a PCs and also the majority of faculties had access to the Internet and the internal network in the university, and Darabi (2013) concluded that the readiness and suitability of the technology platform and access to high-speed Internet are essential items to implement e-education, that the Qazvin University of Medical Sciences is in a non-ready situation.

CONCLUSION:

According to the research findings, in the field of human resource readiness, the professors did not have enough time and time to improve their education, and educational staff in the field of e-education needed more training. In the field of IT infrastructure, faculties believed that the safety and security of the network, hardware and software, as well as high-speed Internet outside of the university were not in a favorable situation. In the field of computer skills, faculties needed to conduct Excel, Access, and web based courses. Therefore, the following suggestions are provided for use by managers and authorities:

- In universities with telecommunication problems, it is suggested that e-education for faculties be used in multimedia educational CDs in order to provide sufficient experience for future use of this technology.
- In order to improve IT infrastructure, especially in the field of faculties training, ICDL's computer skills must be taken seriously by the IT managers in universities, and faculty members are required to learn these trainings.
- In the department of educational management of universities, there are people who have management and supervisory skills in the field of e-education.
- Top university executives should develop perspectives and strategies, and based on human resources education and development strategies, proceed for implementing e-education.
- To design a learning and educational management system, universities will set up a specialized team with different expertise to analyze the educational process and then prepare, install and implement the suitable software.
- Before introducing e-education as a new teaching method in universities, the comprehensive analytical and comparative studies are needed to implement this methodology and use the results of these studies in its implementation.
- Before the implementation E-Educatin, for the administrators and faculties of the university, should be held an e-education workshop.
- E-Education is carried out in different phases (step by step) according to training programs.

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