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The University Faculties' Attitude towards the Implementation of the Virtual Education System

Dr. Yousef Mehdipour
Assistant Professor, Head of Health Information Technology Department, Zahedan University of Medical Sciences, Zahedan, Iran

ABSTRACT
Introduction: The growth of information and communication technologies (ICT) has changed all aspects of today's world. To this day, everywhere in the subject of education, every effort is made to justify its use as a means of improving the lives of people. Influencing new information technologies from school to university, and even home, has changed professorial and student relationships. The Virtual Education System (VEs) refers to a system whereby scholars and professors can do all the education and training activities without having a physical presence in the classroom. The present study was conducted to investigate the University Faculties' Attitude towards the Implementation of the VEs in Zahedan University of Medical Sciences (ZAUMS).
Methods: The present study is a descriptive cross-sectional study in the second half of 2018. The statistical population were all faculties of ZAUMS in the academic year 2017-2018 (336 people). Sample of study, based on Morgan table, was 200 faculties that selected as simple random sampling method. The data gathering tool was a questionnaire whose validity and reliability were determined by the professors. After the distribution and collection of data, the data were finally analyzed using SPSS ver.16 software.
Results: Examination of the computer skills of faculty members at each of the seven levels showed that the highest percentage of male and female respondents are well acquainted with basic concepts of information technology and computer, and file management. The evaluation of the faculty members' attitude towards the implementation of the virtual education system showed that respondents have a positively attitude to this system. Examining faculty members' practical experience showed that very few respondents contributed to this educational system. Examining the barriers to implementation showed that the biggest barrier to implementing this system in the ZAUMS University was the low speed of Internet connection.
Conclusion: In general, it can be concluded that, given the positive attitude of the faculty members about the VEs, it is suggested that the necessary ground for designing and moving towards implementation of the VEs in the formal education of the University of Medical Sciences should be provided.
KEYWORDS: Attitude; Faculty; Virtual Education; Zahedan University of Medical Sciences.

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I. INTRODUCTION:

The growth of ICTs has transformed all aspects of today's world (1). To this day, everywhere in the subject of education, every effort is made to justify its use as a means of improving the people lives. This time has passed and another alternative has been replaced (2). Influence of new information technologies from educational institutions to universities and even homes, has changed Teacher-student relationships (3).

The virtual education system (VEs) is referred to as a system in which scholars and professors can do all the education and training without physical presence in the classroom (4). The education process because of a wider range of training has been strengthened in many disciplines, and Virtual Education (VE) has been used as a source of teaching and learning at all levels of education for educational purposes (5). VE completes the current training methods and replaces them in some cases (6). This type of training is not just an alternative, but it is a necessity that the attention of designers and educational planners is focused on as an effective step to move toward virtualization (7).

Today, VE is becoming one of the most important educational environments, and Information Technology (IT) has created many opportunities for education. Nowadays, the Internet is considered as a complement to learning and teaching in traditional classes and an important and useful tool in distance education. Terms such as classless walls, smart schools, and virtual universities, point to a new and possibly unusual type of e-learning that, in contrast to conventional education, is now being embedded in educational systems in different countries (3). VE has also a special place in medical sciences. The success of a VE program, regardless of the views of individuals towards it, is not feasible and accepting or not Computer acceptance has a profound effect on their learning and education. Learning style is a person's preferred or natural way to deal with information and feelings in a particular situation (learning) that effects on the behavior or decision of the individual. Learning is like a cycle that starts with experience, continues with thinking and ends with activity. Although few studies have investigated the relationship between learning style and attitude towards VE, but these studies didn't have same opinion in this issue (6). Given the rapid growth of VE and the increased demand for it, the answer to the question is important whether VE is limited to a particular group of students with a particular style or that it is used in any learning style (1).

In moving from the physical world to the virtual world, universities have also been influenced by new ICTs and by utilizing these technologies, they have taken the first steps towards accessibility and ease of use of their services (8). Acceptance or denial of computers has a profound effect on their learning and education (9). In this regard, the nature of VE in universities and other educational environments has different dimensions that have been emphasis to the use and effectiveness of this type of education in learning environments and especially in universities (10). The birthday of a VE can be coincided with the expansion of the Internet in the world (the 1980s). The first country to advance in this area was the United States, and now some universities in the world, especially universities with their distance education method, have started a specific training program through the Internet, which The Free University of England, is one of the most famous institution of higher education in the field of distance learning in the world. In 2001, the Iranian University of Science and Technology received Virtual University License from the Ministry of Science for the first time, but failed to attract students and then Shiraz University in 2004 established virtual courses (6, 7).

Various researches have shown that VE can promotes teachers knowledge, better student learning, and also the enhancement of interaction skills and participation in learning (10). At present, the most popular computer communication tools are E-mail and audio and video conferencing. Many leading countries are setting up virtual universities and virtual classes. Establishing and managing these institutions will have some problems and challenges, in addition to its many benefits such as increasing the number of students, eliminating many physical and geographical barriers, providing quick and effective access to the world's information resources, the ability to communicate more and more widely between professors and students, Recruiting and staffing professionals and specialist teachers needed from around the world, and eliminating or reducing administrative barriers. VE is a good arena for the emergence and development of talents, creativity and innovation, and will increase the efficiency of the educational process (11).

It seems that the unique features of this educational method led to have a higher level in higher education, also, the time and place flexibility of this teaching method, the possibility of independent learning for different people with different learning styles, skills levels, Different motivational and cultural backgrounds, and creating equal learning opportunities for all, are many of the features that can be gained through the use of electronic tools in education (12, 13). Acceptance of faculty members and the positive attitude toward changing educational approach are effective factors in the success of implementation of electronic learning system and its continuation (14). Therefore, studying the attitude of learners and faculties, along with the proper design and infrastructure of the technology, can prevent the failure of the project (15).

Many research have shown that a learning-based approach is a successful and effective system if the educational content is properly designed. Currently, many universities in the country have established VE. Although there are currently more than 3.5 million students using virtual classes, but, little information is available on students' attitudes toward this teaching method (16). On the other hand, the success of a training program, regardless of the views of individuals towards it, is not possible (17, 18). But VE is more recent in medical science universities. Since the attitude toward an educational method can be influenced by the learning styles of individuals, in the current study, the relationship between learning styles and attitudes towards VE has also been studied. Therefore, this study aimed to investigate the attitude of faculties in Zahedan University of Medical Sciences (ZAUMS) toward the implementation of the virtual education system (VEs).

II. MATERIAL AND METHOD:

This research is a descriptive-cross sectional study in 2018. The statistical population were all faculty members of ZAUMS in the academic year 2017-2018 (336 people). Sample of study, based on Morgan table, was 200 faculties that selected as simple random sampling method. Research tools was a standard questionnaire that developed by Ebrahimipour (19) with 31 questions. The content validity of the questionnaire was confirmed by

five professors. The reliability of questionnaire confirmed by test-retest method and Cronbach's alpha test (0.79). Since some of the questionnaires may not be completed or incompletely and may not be used in data gathering, accordingly, the researcher distributed 230 questionnaires among faculty members of ZAUMS in a simple random sampling. Finally, after data gathering, data analyzed using descriptive statistics and SPSS ver.16 software. Regarding the fact that researcher was working in ZAUMS, research was carried out without any limitations.

III. **RESULTS**:

- Based on research findings, in this study, 61.7% of faculties were male and 38.3% were female. 56.7% had PhD and above degrees and 43.3% had master's degrees, and the highest age group was between 30 and 39 (35%).
- In general faculty members have a positive attitude toward virtual education. 58/4% of the respondents were agree to implementation of VEs, 33/3% were disagree, and 8/3% were no comments.
- According to the results, only 25% of the ZAUMS faculties involved in the production of electronic content and only 23/3% of them have used this method in previous.
- Also, 50% of faculties stated that they have the necessary infrastructure and tools for virtual education. And 50% of them expressed that there are not the necessary infrastructure and tools for virtual education in ZAUMS campus.
- Findings about the teaching styles showed that 26% of faculties use lecturer method, 21/5% by group discussion, 20/4% by seminar, 17/4% by problem-based learning, and only 14/7% by virtual learning methods.
- %76.6 of faculties agree that the use of new teaching approaches facilitates learning in learners but, 73.3% of them stated that due to individual differences in students, the need to use different educational methods is necessary.
- %68.3 of the faculties stated that it would be better to have face to face training along with VE in order to create the appropriate field for VE.
- In general, 90% of the faculties (88/2% of Ph.D. and 92/3% of master's degree) stated that the quality of student learning in the face-to-face method is higher than the virtual method, and 86.6% stated that face-to-face training is more effective than VE in changing the attitudes of learners.
- 53.33% of faculty members with a master's degree agreed with the students' better understanding with the virtual method.
- 80% of the faculties stated that before the implementation of the VE program, it would be better to organize workshops for the preparation of appropriate educational contents.
- Finally, 75% of the faculties stated that cultural development and changing society's attitude for the promotion and implementation of VE are essential.

IV. DISCUSSION AND CONCLUSION:

Main Objective: Determining the attitude of Faculty Members of ZAUMS toward the VEs: based on the findings of this study, faculty members have a positive attitude toward VEs, 58/4% of the faculty members agreed with implementation of VEs and 33/3% of them were disagreed and 8/3% were no comment to the implementation of VEs. Ebrahimi et al. (20) concluded that a significant percentage of the university staff endorsed this training method (VEs) and agreed to its' effectiveness. Ebrahimipour (19) in his study concludes that 79/1% of university professors agreed with the implementation of VE, and also stated that faculties with more teaching backgrounds tend to be less willing to implement this method. Also, Delaware (21) showed that faculty members have a positive attitude about the role of VE in creative learning. Abdollahi (22) showed that underlying inhibitors have the most inhibitory effect on the participation of faculty members in virtual education. Correlation test also indicated that there was a significant direct relationship between obstacles. The comparative comparison of findings suggests that the presence of intrusive agents exacerbates the attitudinal and personal impact on reducing the participation of professors.

Second Objective: Determination of the Skills of the Faculty Members of ZAUMS in using computers and the Internet: In this study, the best skills of faculties was working with the Internet and its applications (storage, download, and search). Other skills, such as working with Microsoft Word, building a Power Point, and communicating with colleagues via E-mail, are at the forefront of members' skills. Gholami (23) showed that the basic knowledge of the Internet was the best skills of faculties and lack of knowledge of computer technology was the lowest their skills. Zarei (24), showed that the level of familiarity of staff with computer and the basic concepts of information technology was moderate. Among the different skills, the most familiarity was the Office software package and the least familiarity with the Internet and the World Wide Web. The ability to use the Office software package was the most relevant to the Word program and the least skill related to the Access program.

Third Objective: determining Practical Experiences of ZAUMS faculties in Implementation of VEs: finding showed that 25% of the faculties involved in the production of electronic content and 23/3% of them have used this method in previous. Findings about the teaching styles showed that 26% of faculties use lecturer method, 21/5% by group discussion, 20/4% by seminar, 14/7% by virtual learning methods and 17/4% by problem-based learning. Alavi et al. (25), showed that the average of problem solving methods, group discussion, lecture, and question and answer are respectively 34/76, 34/68, 34/49, 32/56.

Fourth Objective: determining the barriers to implementation of the virtual education system from the viewpoint of the faculty members of ZAUMS: finding showed that 50% of faculties stated that they have the necessary infrastructure and tools for VE. According to the findings of this research, the most important barrier in implementation of VEs is the low speed of internet connection in ZAUMS. Also, one of the most important reasons for the lack of willingness to implement this educational system is the lack of familiarity of faculty members and authorities with E-learning. Also, According to the opinion of the faculties, the framework and infrastructure for VE in ZAUMS are somewhat available. Keshavarzi (26) showed that the possibility of deploying VE in Islamic Azad University of Marvdasht is highly regarded by authorities and professors as well as among students and the level of interest and willingness of professors and students toward VE was high. Also, the results of Ahmadi (27) study showed that the status of the technical infrastructure, the needed facilities and tools, the skills of professors and students, and the training design for implementing VE at the university are good.

However, according to the results obtained in the research, the following strategies are suggested to managers:

1. Acceptance of VEs, due to its newness even in developed countries, is still one of the main topics of the day's research and it is expected that this phenomenon will be investigated by various experts from the various dimensions.
2. VE should be given to the students and faculties step by step on the Internet pages.
3. A comprehensive plan should be designed to equip and set up this educational system in universities.
4. As pilot, generate some electronic content and hold the course using a complete e-learning model for students and faculties before start VE.
5. Universities in order to deploy VE, given that every day new software and new features with a lot of capabilities are offered, to invest in this field after create the necessary culture, take precaution and careful attention to the purchase of VE equipment.

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