IOSR Journal of Research & Method in Education (IOSR-JRME)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 9, Issue 2 Ser. III. (Mar. - Apr .2019), PP 05-09
www.iosrjournals.org

The Medical Students' Attitude toward E-Learning in ZAUMS

Dr. Yousef Mehdipour[1]
[1] *Assistant Professor, Head of Health Information Technology Department, Zahedan University of Medical Sciences, Zahedan, Iran*
Corresponding Author: Dr. Yousef Mehdipour

Abstract: *The growth in Internet has brought changes in all walks of life including the education sector through E-learning. E-learning is learning done by studying at home using computers and coursesprovided on the internet. The present study explores e-learning in university seen from the students' point of view. The design of the study is a descriptive survey and carried out in Zahedan University of Medical Sciences (ZAUMS) in Zahedan city on 2018. The target population comprised of all the Students of ZAUMS. The sample consisted of 900 Students that randomly were selected from population of study. One questionnaire was used in order to collect the views of Students. The instrument used for data collection was a 33 item that developed and validated by the researcher. The internal consistency of the instrument was determined using Cronbach alpha method and the coefficient of internal consistency obtained was 0.79. On the base of results, Majority of the students (90%) opined that E-Learning in higher education is So Effective. And 85% of students opined that E-learning, if done right, can produce great results by decreasing costs and improving performance. Ultimately, ZAUMS students have positive attitudes to implementing new technologies in ZAUMS University of Medical Sciences such as E-learning.*

Keywords: *Attitude;E-Learning; Higher Education; Student; University.*

Date of Submission: 27-03-2019 Date of acceptance: 12-04-2019

I. Introduction

Earlier, if you did not have time to visit a University and attend the usual classes or training programs then it could be a cause of concern. However, things have changed now, and with so many e-learning tools available you can opt for any course and sit and learn from the comfort of your own home. E-learning, electronic learning or online learning offers you the chance to select your desired institution from any part of the world, select any course you prefer, and also select the hours when you will study, thus making things a lot easier for one and all. It is widely being used for business purposes to train the employees of companies located worldwide. The range and scale of possible applications of new technologies in higher education is almost beyond imagining because, while we try to cope with what is possible now, another technological application is becoming available that will extend those possibilities even further.

E-learning is the computer and network-enabled transfer of skills and knowledge. E-learning applications and processes include Web-based learning, computer-based learning, virtual education opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio. In the other words, E-learning is a relatively new concept implying learning by means of digital media such as computers, Web pages, video conference systems and CDROMs. Abbreviations like CBT (*Computer-Based Training*), IBT (*Internet-Based Training*) or WBT (*Web-Based Training*) have been used as synonyms to e-learning. E-learning includes all forms of electronically supported learning and teaching, including educational technology. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process [1]. This often involves both out-of-classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum. It is commonly thought that new technologies can make a big difference in education. In particular, children can interact with new media, and develop their skills, knowledge, and perception of the world, under their parents' monitoring. Many proponents of E-learning believe that everyone must be equipped with basic knowledge of technology, as well as use it as a medium to reach a particular goal.

The use of ICTs in university education is not a new phenomenon. In the 1980s online methodologies were developed to support campus-based and distance education, under the headings 'computer-based' or 'computer-managed learning', using e.g. bulletin board systems, electronic mail and computer-mediated conferencing [2]. Since the 1980s text-based systems, audio graphics and videoconferencing have been used in distance education [3]. Some of the systems delivering computer-based learning rely on real time interaction,

while others can be accessed asynchronously. Asynchronous delivery of learning material is independent of time and place and gives learners time to reflect and mull over ideas. Real-time, synchronous communication is an important motivation factor for distance learners and provides quick feedback. When the World Wide Web emerged, new opportunities were created providing access to education without the limits of time and space. The World Wide Web integrates text, audio and video, and provides means for both real-time communication and asynchronous interaction [4].

Information and communication technologies (ICTs) are becoming progressively more widespread throughout the education sector. ICTs are increasingly being used in staff training in trade and industry as well as in university education. In university education of today ICTs are used for distance tuition but also to create a complement to teacher-controlled tuition on campus [5, 6]. In recent years, computer programs for e-learning, consisting of tools such as text, graphics, video, three-dimensional objects and animations, have been developed. Virtual classrooms can be used to broaden educational services [7]. It is predicted that ICT will bring about major benefits to the learner and the teacher as it will include sharing of resources and learning environments and promote collaborative learning [8].

So far, most discussions on the use of e-learning in Higher Education have focused on ways for the teacher to incorporate the new technology into their teaching. Discussions, or even knowledge, about e-learning from the student perspective seem to be very sparse. However, there are reports of students overwhelmingly preferring to take class using e-learning than a traditional course. They felt that e-learning was a helpful tool in their learning [9]. Students' perceptions of e-learning in university education may be influenced by specific individual variables. In addition to the variables age and gender there are at least three such characteristics: previous experience of computers, technology acceptance and individual learning style.

Young students may have experienced e-learning in secondary schools. On the other hand, older students may for the first time have met computers for educational purposes at university. Irrespective of age, men are supposed to be more used to computers than women. Women typically display lower computer aptitude and higher levels of computer anxiety. Research has indicated that men's technology usage decisions are more strongly influenced by perceptions of usefulness. In contrast, women are more influenced by perceptions of ease of use. Men and women focus on different aspects of using computers [10]. Hence, it could be hypothesized that young male students are more prone to adapt to e-learning than not so young female students.

By 2006, 3.5 million students were participating in on-line learning at institutions of higher education in the United States. According to the Sloan Foundation reports [11, 12] there has been an increase of around 12–14 percent per year on average in enrollments for fully online learning over the five years 2004–2009 in the US post-secondary system, compared with an average of approximately 2 per cent increase per year in enrollments overall. Allen and Seaman [12] claim that almost a quarter of all students in post-secondary education were taking fully online courses in 2008, and a report by Ambient Insight Research suggests that in 2009, 44 percent of post-secondary students in the USA were taking some or all of their courses online, and projected that this figure would rise to 81% by 2014 [13].

Individual learning styles play an important part in adapting to new learning situations. Individuals differ in their general skills, attitudes and preferences for processing information, constructing meaning from it, and applying it to new situations [14]. Hence, individuals would react and adapt differently to e-learning depending on their individual learning style. Learning styles could, according to the American psychologist Kolb [15], be classified in four dimensions:Abstract**,** Reflective**,** Active,andConcrete. *Abstract individuals* comprehend information conceptually and symbolically. They learn best when they deal with models, theories, concepts and systems. *Concrete individuals* apprehend by the tangible, felt qualities of immediate experience. They have to practice what they learn. *Active individuals* extend the environment by external manipulation. They thrive in competitions and situations being in the spotlight. *Reflective individuals* exhibit intention by internal reflection on the external world. Before acting they perform careful intellectual analysis. These four types can be contrasted in two pairs [14], one for perception (Abstract or Concrete) and one for processing/transformation (Active or Reflective).

It can be seen that e-learning is moving rapidly from the margins to being a predominant form of post-secondary education. As there is a tough competition going on all over the world especially in the field of education, quality of service and student satisfaction plays a crucial role for success. The present study explores e-learning in university seen from the students' point of view in Zahedan University of Medical Sciences (ZAUMS) in Zahedan, Iran. It discusses their attitudes to and experience of e-learning used in regular university training programs.

II. Material and Methodology

The design of the study is a descriptive survey which attempts to collect data from members of a population in order to determine the current status of the population. The study was carried out in ZAUMS in Zahedan city (Sistan&Baluchestan province, Iran) on 2018. The target population comprised of all the Students

of ZAUMS, Zahedan, Iran. The sample consisted of 900 Students that randomly were selected from population of study. One questionnaire was used in order to collect the views of Students. The instrument used for data collection was a 33 item that developed and validated by the researcher. The internal consistency of the instrument was determined using Cronbach alpha method and the coefficient of internal consistency obtained was 0.79. In order to get data from the respondents through the above instruments, the researcher visited the sample Students personally and administered the questionnaires to the sample students. The respondents were requested to record their free, frank and independent responses. An assurance was given to the respondents that their responses shall be kept confidential and information collected will be used only for the purpose for it was collected. The collected data were analyzed by using SPSS v.16 software.

III. Results

In this study 41% respondents are in the age group of 15-25 years, 52% respondents are in the age group of 26-35 years, and 7% respondents are in the age group of 36 and above. 44% respondents were female and 56% male. And also, 39% respondents were bachelor, 48% Master, and 13% PhD. And 81% of respondents were native students and 19% were non-native students. Analysis of the student's opinions showed that:

- ✓ Majority of the students (90%) opined that E-Learning in higher education is So Effective. live classroom-based training is becoming too costly and cumbersome. Even if employees had the time to attend all the courses and seminars and to read all the books and reports they should to remain up-to-date in their area of work, the cost of such learning would be prohibitive. The need to transform how organizations learn points to a more modern, efficient, and flexible alternative: e-Learning. The mission of corporate e-Learning is to supply the workforce with an up-to-date and cost-effective program that yields motivated, skilled, and loyal knowledge workers.
- ✓ 85% of students opined that E-learning, if done right, can produce great results by decreasing costs and improving performance. Also, unlike a one-time classroom session, the e-learning course is available for others. This includes the static e-learning course as well as any ongoing conversations in networked communities. Understanding e-learning's value helps you make the best decisions about when and why to use it.
- ✓ 84% of students informed that E-learning supports the Organization's Goals, and e-learning can improved training costs (73%) and decreased material costs (81%). Producing learning content is time consuming whether it's online or not. With e-learning, each time the course is accessed your return on investment improves because you are dividing the fixed production costs by number of uses. You also have savings through decreased travel, reduced material, and hopefully improved (and more efficient) performance. On the other hand, by creating the environment online and letting the learner practice, you never have to worry about the costs associated with set up, use, and clean up.
- ✓ Majority of the students held that e-learning increase productivity (93%). Because E-learning is not bound by geography or time, you can control training's impact on production by training people during down times. In addition, with the current economy, you're asking people to do more with less. So, e-learning is a great way to give them the tools and skills needed to enhance their performance.
- ✓ Majority of students believe that E-learning allows you to create a standardized process and consistency in the delivery of content (93%). It also compresses delivery time (87%). They have combined E-learning courses with facilitated sessions (90%), and E-learning delivered consistent content (79%).
- ✓ Students expressed that E-learning supports the Learner's Development include Real-time access (97%), freedom to fail (90%), improved retention (94%), and personalized learning (88%). Live learning events require that those who participate align their schedules to the training calendar. E-learning eliminates this because the course can be accessed anytime, anywhere. This can also happen without Internet access. E-learning lets you fail without fear. This encourages exploration and testing of ideas. With the right feedback, teacher create a great learning environment. Also, the combination of multimedia and instructional design can produce a very rich learning experience that is repeatable.
- ✓ In terms of students, the Six benefits of e-learning, in order of importance, are study anywhere (100%), Time and Money Savings and reduce costs (92%), flexibility (87%), better access (86%), focused learning (72%), and knowledge development (65%).
- ✓ Also, in terms of students, the four disadvantages of e-learning, in order of importance, are: less face to face interaction (74%), access to technology tools (62%), lack of control (60%), and isolation feel (54%).
- ✓ Finally, results indicated that students generally appear to be at least as satisfied with their on-line classes as they are with traditional ones, and also, ZAUMS students have positive attitudes to implementing new technologies in ZAUMS such as E-learning.

IV. Discussion and Conclusion

Results of this study showed that students are comfortable with e-learning methods, as they are similar to the forms of information search and communications methods they use in other parts of their lives, also, student expressed that interactive technology offers a new mode of engagement with ideas via both material and social interactivity online social - the reduction in social difference afforded by online networking fits with the idea that students should take greater responsibility for their own learning. They opined that e-learning offers the ability to manage quality at scale, and share resources across networks; its greater flexibility of provision in time and place makes it good for widening participation, and more importantly, Networks and access to online materials offer an alternative to place-based education which reduces the requirement for expensive buildings, and the costs of delivery of distance learning materials. David McConnell's [16] emphasizes the importance of network technologies for enabling both campus and distant students to learn through social interaction and collaboration. Ravenscroft [17] expressed that implementation of e-learning technology in higher education provides a wide range of new opportunities for development by increasing flexibility in time and location of study .

E-learning could do more. The interactive computer could be used to give students an alternative to writing as a form of active participation in knowledge-building. It can model real-world systems and transactions, and can therefore create an environment in which learners can explore, manipulate, and experiment. The features of the digital environment are fully controlled by the program so that it can be designed to offer as much or as little freedom to the learner as is appropriate to their level of mastery.

There are many advantages to online and computer-based learning when compared to traditional face-to-face courses and lectures, includes:

- Students can study anywhere they have access to a computer and Internet connection
- Class work can be scheduled around work and family.
- Reduces travel time and travel costs for off-campus students.
- Students may have the option to select learning materials that meets their level of knowledge and interest.
- Self-paced learning modules allow students to work at their own pace.
- Flexibility to join discussions in the bulletin board threaded discussion areas at any hour, or visit with classmates and instructors remotely in chat rooms.
- E-Learning can accommodate different learning styles and facilitate learning through a variety of activities.
- Develops knowledge of the Internet and computers skills that will help learners throughout their lives.
- Successfully completing online or computer-based courses builds self-knowledge and self-confidence and encourages students to take responsibility for their learning.

Also there are a few disadvantages as well, includes:

- Hands-on or lab work is difficult to simulate in a virtual classroom (One size doesn't fit all).
- Learners with low motivation or bad study habits may fall behind.
- Without the routine structures of a traditional class, students may get lost or confused about course activities, deadlines, and so on.
- Students may feel isolated from the instructor and classmates (Less face-to-face interaction).
- Instructor may not always be available when students are studying or need help.
- Slow Internet connections or older computers may make accessing course materials frustrating.
- Managing computer files and online learning software can sometimes seem complex for students with beginner-level computer skills.

However, like most new technology, e-learning still has its drawbacks. "New ways of learning, require new forms of institutional management", so, if universities are to rethink their methods of teaching, they need a management structure that is capable of supporting innovation. "The process of change must be initiated from both 'bottom-up' and 'top-down', with the bottom having the knowledge and the top the power, The top must use its power, not overtly and directly, but to facilitate the work from the bottom and to provide conditions under which it can prosper".

E-learning has been used very effectively in university teaching for enhancing the traditional forms of teaching and administration. Students on many courses in university now find they have web access to the lecture notes and selected digital resources in support of their study, they have personalized web environments in which they can join discussion forums with their class or group, and this new kind of access gives them much greater flexibility of study. On the other hand, properly trained staff must also be hired to work with students on-line. These staff members need to understand the content area, and also be highly trained in the use of the computer and Internet. Online education is rapidly increasing, and online programs have even developed at leading research universities.

Totally, a university education capable of equipping students for the 21st century must pay close attention to the skills and opinions of students and faculties, and also technological tools issues.

Acknowledgment

I would like to thank all the distinguished Students of ZAUMS who helped me in this research.

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Dr. Yousef Mehdipour. "The Medical Students' Attitude toward E-Learning in ZAUMS." IOSR Journal of Research & Method in Education (IOSR-JRME) , vol. 9, no. 2, 2019, pp. 05-09.