Studying the Importance of Planning Components in Virtual and Conventional Training of Nursing

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Abstract
Introduction: Virtual education in medical schools because of the sensitive and critical nature of the work areas covered is new and falls behind the universities of the Ministry of Science, Research and Technology in Iran. Curriculum planning is an important tool for the realization of the goals and overall mission of higher education. This research tries to address the important components of training curriculum in virtual education from the view points of the faculty board member of Nursing and Midwifery.

Methods and Materials: Sampling was conducted in nursing and midwifery faculty of Tehran Medical Sciences Branch in Islamic Azad University. The research tool was a researcher made questionnaire. Cronbach's alpha showed good internal consistency of questionnaire (α=96%). Samples include of 21 academic of the Faculty of Nursing and Midwifery, the Likert items scale questionnaire consist of 55 items. Descriptive statistical, and non parametric tests were used for data analysis using the SPSS 16. A P- value less than 0.05 was considered significant.

Results: In sub domains of virtual learning, the most score was related to "Learning Activity", "materials and curriculum resources" and "Teaching strategy" and the least score was in "Learning environment", respectively. In questions related to barrier of E-learning, the most ability of faculty member was " the possibility of organizing training courses for teachers" and the least ability related to " internet speed".

Discussion: The curriculum designers should pay special attention to the above cases when they prepare the curriculum programs due to the needs of today's universities for virtual education. The first step also is recognition of strength and weaknesses at the universities to realize the implementation of virtual education.

Keywords: virtual learning, curriculum, conventional learning, nursing

Introduction

Humankind is learning and acquiring knowledge throughout own life. Education issue is also coordinating and strengthening with development of technology step by step. Therefore, learning is one of the basic needs for the people and it is obvious that living in a developed society of today that the information are changing and improving continuously, the man who is unaware of these changes is unstable and isolated from the society (Agha Kasiri and Fazelian, 2006).

Tools and techniques of education have also developed and expanded due to the advancement and development of information technology and using telecommunications in the society. These development and changes are in a way that people can learn their own facilities, regardless of the pre-specified time and location (Kennedy,2008).

On the other hand, society cannot respond to all people who are training with increasing population. Therefore, a strategy is needed to be find so that education will be possible for all with the lowest cost(Agha Kasiri and Fazelian,2006).

One of the new methods is education of skills by virtual systems (Aggarwal and colleagues, 2003).Virtual education is a tool and process of knowledge transfer to the teaching-learning with a modern style and comparative advantages(Shah Beigi and Nazari, 2011). The main objective of this approach is that it can help learners to develop skills at higher levels (Aggarwal and colleagues, 2003).

E-learning, Computer-based training and Web-based training are selected methods for new ways of learning(Shah Begi and Nazari,2011).

Virtual education is the acquisition and use of distributed knowledge and is facilitated through electronic means such as the Internet, Satellite, Audio-Visual recordings, TV and etc. Virtual Course term covers broad range of application and processes. The synonym terms of virtual education are E-learning, Distance learning, Distance education, Internet-based learning, Learning Network, Computer –based training, Digital Course, Online learning, Web-based training and Mobile learning(Rezaei Rad,2011). The history of using virtual technology-based learning returns to the first decade of 1800s BC.

In fact, virtual education is begun by corresponding education in the mid of 1800sBC. The tools such as slides and motion pictures entered the class as the educational tools with production and development audio-visual equipment, and the advent of the television industry created milestone in the process of supplementary in distance education (Agha Kasiri and Fazelian, 2006). The advent of the Internet has also been creating new challenges in the educational field, and using an appropriate plan of the Internet and infrastructure for education has been noticed during recent years(Shah Beigi and Nazari, 2011).

Nowadays, many of the developed countries are creating and establishing the virtual classes and universities. Virtual education is the appropriate field for increasing talents, creativities, innovations and it also causes to increase the efficiency of learning processes (Kheir Andish, 2011).

Of course, virtual education via the Internet or E-learning is a new industry in distance learning technology in Iran. Therefore, educational Institutions and centers especially universities are trying to provide the education according to our country's standard (Agha Kasiri and Fazelian,2006). A growing wave of virtual education is creating in Iran and it seems that the presentation of many fields will do via the virtual education, in the next few years(Rahman Poor, Liyaghatdar and Afshar, 2009). E-learning includes the main advantages compared to the traditional learning. The most important of them are flexibility, removing the costly and unnecessary trips for company during the training courses. But This educational method includes another advantages is as follows:

-The expense of E-learning courses are not expensive and these courses can be formed by using software and available tools.
 - Learners are able to set the process of learning according to their requirements. The most E-learning programs are used by learners whenever they need them.
 - The speed of learning at E-learning compared to the traditional learning is more, and the speed and improvement will be 50 percent at least. The learners of these courses are able not to study the contents are familiar with them and they can study the new contents.
- E-learning is separate from the time and location variables.
- When the subjects are represented in the form of text, image, sound and motion, there is a less need to take notes with a pen on the paper. So, this representation leads to save the production of such stationeries.
 - These kind of programs have more attractive for learner.
- Learning methods are important at the virtual universities and research is highly valued (Givehkei, 2004).
- One of the undeniable advantages of virtual education is evaluation issue. In this kind of education, evaluation not only is done more faster but also is movement towards self-evaluation which is one of the important objectives of Education that is being formed in this training. A learner acquires better recognition to himself/herself with own continuous evaluation and it will be effective in the learner's development (Agha Kasiri and fazelian, 2006).

Universities under the Ministry of Science, Research and Technology in the country of Iran have started activities in applying this method during two recent decades. In the following of it, Virtual education must have been become prevalent at medical universities of country (Noorian, 2011). Virtual education at medical universities is new and more underdeveloped than the Ministry of Science, Research and Technology universities due to the sensitive and important nature of the covered practical areas and finally, the maximum of the work that has been done is the establishment of a number of Master Course (mostly theoretical Courses) that are virtually(Kazem Poor, Ghaffari, 2011).

The various studies have shown the beneficial effective of education in various medical courses by the use of Virtual systems (shahsavari Esfahani and colleagues, 2011). In this case, Shahsavari says that "using virtual systems is recommended due to being active of learner in learning based on learners' capability and due to the interactive nature in the kind of training in medical education, although using the traditional method along with new education can provide the deep field of learned

skills, with the consideration of being new of Virtual education in many practical skills.

Noorian and colleagues (2011) have also evaluated positive the use of Virtual method in amount of the student knowledge in theoretical course of sociological dentistry field and believe that it can be used as a replacement method for dentistry colleges of country with consideration to it 's prominences in provision that educational facilities and necessary requirements will be provided. The equal opportunities of education for all and everywhere with advert of modern technologies cause undoubtedly that the presentation of lessons are varied and continued.

But this does not cause a deep and effective learning alone. So, it will be created a focused approach based on human learning and not based on the new electronic tools for designing, development and preparation of effective E-learning Courses in addition to considering all involved factors in the failure of previous projects (Turkashvand and Attaran, 2014). Success in implementation of E-learning program requires the correct process of planning principles, designing, evaluation and creating online learning environments (Rezaei Rad, 1391).

Since there is a desire for holding the courses of Virtual education in nursing at Nursing and Midwifery of Islamic Azad university, Tehran medical branch, we decided to study the importance of planning components in Virtual and conventional education from the faculty's views at the first step.

Materials and Methods

Sampling was conducted in nursing and midwifery faculty of Tehran Medical Sciences Branch in Islamic Azad University. The research tool was a researcher made questionnaire. Face and contentment validity were used for questionnaire. Cronbach's alpha showed good internal consistency ($\alpha=96\%$). This pilot study is a component of a larger survey was approved by research committee of Islamic Azad University, Tehran Medical Sciences Branch samples include of 21 academic of the Faculty of Nursing and Midwifery, the Likert items scale questionnaire consist of 55 items (43 items about the importance of curriculum and 12 items in e- learning).

Descriptive statistical included (frequency, mean ± standard deviation), and non parametric (Kruskal-Wallis and Mann- Whitney) tests were used for data analysis using the SPSS 16. A P value less than 0.05 was considered significant.

Findings

All participants in this study were female and the mean age was 39.28 ± 4.52(Table 1). In this pilot study 12 person (57.1 %) had less than 10 years work experience, 6 person(28.6 %) between 11 and 20 years, and 3person(14.3 %) more than 20 years(Table 2). 85.7 % of participants, as well as a master's degree and 14.3 % had a PhD degree. In this study 71.4 % of participants were faculty member.

Table 1: The mean and standard deviation of the participants age

Statistics		
Age		
N	Valid	21
	Missing	0
Mean		39.2857
Std. Deviation		4.52927

Table 2: the work experience of the participants in the study (year)

Experience		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 10 y	12	57.1	57.1	57.1
	11-20 y	6	28.6	28.6	85.7
	More than 20 y	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

In sub domains of virtual learning, the most score was related to "Learning Activity (12.85±4.39)", " materials and curriculum resources (12.85±3.26)" and "Teaching strategy (12.71±3.82)" and the least score was in "Learning environment (5.42±1.43)", respectively.

Table 3: Mean and standard deviation of answer the questions about study areas

Statistics	T-Goals	T-Learning Content	T-Learning activities	T-Teaching Strategy	T-Team work	T-Material Resources	T-learning Time	T-Learning Environment	T-Evaluation
Mean	8.42	10.00	12.85	12.71	7.14	12.85	9.71	5.42	10.00
Median	10.0	10.00	11.00	15.00	7.00	14.00	11.00	6.00	10.00
Std.D	2.31	2.38	4.39	3.82	3.02	3.26	2.72	1.434	2.44

Also, there was statistical significant correlation between all subcategories in virtual learning (p≤0.05).

In Non parametric test(Mann-Whitney) there was significant difference in mean ranks of "Team work(p= 0.026)" and "learning time" (p= 0.031) by" job position"(faculty member and non faculty member). so, the most score of "team work" and "learning time" among non faculty member was more than faculty member (15.5 V.S 9.20)(Table 3).

In questions related to barrier of E-learning, the most ability of faculty member was " the possibility of organizing training courses for teachers" (2.43±0.5) and the least ability related to " internet speed" (1.14± 0.35) .

In sub category of "learning activity ", "the importance of virtual learning in high-level cognitive skills (such as analysis and synthesis)" was determined more than conventional training(71.4 %). Also the virtual learning has presented as a motivator in learning process (57.1 %).

In sub category of "learning strategies ", the importance of "numerous ways using a variety of teaching to help students learning", " according to the regulatory role of the teacher " and "Using the problem -oriented methods " (42.9 %) in virtual and conventional training are the same.

The importance of "relevant to the needs of students " (71.4 %), " relevant to the objectives of learning " and " accredited educational resources " (85.7 %)

In virtual and conventional training were rated similar in sub category of materials and curriculum resources.

Discussion

The results of this research show that " learning activities", "materials and curriculum resources", and "teaching strategies are more important rather than the conventional education in virtual education. The results of research entitled "recognition of privileges of electronic curriculum in Higher Education in the views of curriculum specialists and Information Technology (IT) show that all of component principles of learning activities, teaching strategies, grouping, the time, location and evaluation are more important rather than the conventional education from the curriculum specialists' views.

IT specialists have also expressed all the component principles of time and location are more important rather than the conventional education. There is also the difference between the Information Technology (IT) and curriculum specialists about the principals related to components of objectives, content, learning activities, teaching strategy, grouping, material and resources, and evaluation. But there is no difference between the components of time and location (Zarei Nojini, 2010).

The main subgroups are " the high –level cognitive skills (analysis and synthesis)"(71.4%) and "encouragement of group learning" (57.1%) about learning activities. One of the strategies that Philip Zack and some of his colleagues suggest for the effectiveness of distance learning is creation a learner-based activity for independent work and teamwork, so that eventually leads to the development of group activities.

One of the ways for overcoming the challenges of electronic classes (E-learning) is preparation of various forms of activities such as discussion and debate, feedback, reflection and criticism that is suggested by Rafeld and Hey Mystra(Sarkar Arani and colleagues, 2003).

The main subgroups of materials and curriculum resources are " Designing of curriculum based on the students' need", "being relevance to the objective of learning" and" authentic resources of materials" of course, the importance of mentioned subjects in virtual and conventional education are the same in participants' views at study. One important feature in the virtual environment of learning is access to a variety of materials and resources' of learning. Each learner can access to the extensive resources of learning with acquisition of searching skills.

This access will allow the student has different views to the learning issue and acquires an overview to that subject. Although Internet resources have provided the access to a variety of materials and learning resources, but some of these resources don't have enough validity. (Seraji, 2007). Therefore, the virtual curriculum designers should select and prepare the authentic learning resources among the extensive resources based on the amount of correlation of resources between subject and learning objective, the amount of coverage in learning content, appropriate resources related to the individualities of learners, The amount of knowledge and needs of learners, being update of resources, being relevance to the real life and scientific validity(Nidoo, 2003).

Subgroups of "using different methods in teaching to help students learn"," attention to the supervisory role of teacher", and " being subject-oriented" are the same important in virtual and conventional education. The results of research entitled " The effect of correspondence among teaching and learning styles on efficiency of the students' performance" show that correspondence among teaching styles – learning styles on efficiency of the students' performance, have a positive and meaningful influence (Eskandari and Salehi, 2009). At present this university has a good ability to create the educational courses for teachers, because of having facilities for implementation of virtual education and the participants' views at the study, but the speed of Internet is not appropriate.

The results of research titled " Study and prioritization of the effective factors in the successful implementation of E-learning from the faculty members' views of Fasa medical university show that the highest priority are in order favorable views of university officials for development of E-learning, access to the broad band Internet, access to the necessary software for expanding E-learning among the factors.

In fact, the most important factor in the successful implementation of E-learning was the set of technology (Bordbar, 2010). In a recent study it is also expressed the main obstacle to the implementation of virtual learning is" the appropriate speed of Internet" (1.14±0.35) that it is similar to the study. This means that first there is a need to be proved the main obstacle that is the slow speed of the Internet for successful implementation of E-learning in this faculty in the participants' views at the study.

The results of this research shows that "learning activities", "materials and curriculum resources" and "teaching strategies" in virtual education are more important rather than conventional education. So the curriculum designers should pay special attention to the above cases when they prepare the curriculum programs due to the needs of today's universities for virtual education. The first step also is recognition of strength and weaknesses at the universities to realize the implementation of virtual education.

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