Study of human Barriers upon Development of Virtual Disciplines at University of Isfahan

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Abstract

The present study has been carried out to investigate the human barriers of developing virtual majors at Isfahan University; therefore, considering its objective, it is a functional research. It was conducted in combined (quantitative-qualitative) manner via descriptive survey method. In order to do the research, investigating the texts, interview and questionnaire were used. The statistical population to be interviewed was 43 heads of department and the selection of managers and experts in the field of virtual education and information technology at Isfahan University; and the interview was conducted with 13 people. Afterwards, according to the results of interviews and studied resources, a researcher-made questionnaire was provided. The statistical population of the questionnaire was 420 faculty members at University of Isfahan from whom 201 individuals were selected based on Morgan table and Cochran formula as the sample. The results of the data from the interview and the findings from the questionnaires were sequentially analyzed through categorization method and statistical methods via SPSS software. The results showed that the major barriers in the field of human resources there were high amount of work of the professors in attending parts and university responsibilities and weakness in relationship and interaction of the professor and student.

Keywords: Virtual Majors, Information Technology, Development, University, human resources

1.   Introduction

The higher education has always had intimate relationship with the life and advancement of human societies. In order to meet the needs of people and their countries, universities all over the world are now involved with training millions of students. In order to respond to adapt with the social demands, many of the developing countries, also, set the development of higher education at the top of their policy making (Arasteh, 2005). Also, in line with the development of higher education, information and communication technologies have developed and its penetration in all aspects of life, education and occupation and accessing information literacy is the necessity and prerequisite of life and survival in today's knowledge-based society (Yari, 2011).

The most important consequences of such change are the challenges higher education has been faced with in the new century. The most crucial of them can be expressed as follows: the intricate relationship between globalization and education; specially the higher education (Javdani, 2009) and the rate of knowledge production (Saeed et al., 2011; Fazlalizadeh, Aghazadeh and Ahghar, 2010), creation of a constant and eternal higher education system and the increase in number of requests and students in order to achieve information technology and the appearance of the suitable place in line with the globalization phenomenon (Montazer and Dayyani, 2003; Farajollahi and Zarif Sanayei, 2008; Zamani and Madani, 2011), time and space limitations, the insufficiency of traditional education systems AND low capacity of these systems (Fazlalizadeh, Aghazadeh and Ahghar, 2012).

The emergence of these challenges has made the higher education system theorists, planners and managers active to solve this problem. The education systems, particularly higher education systems, which play basic roles in the growth, development and survival of any country, should be first organizations who enjoy the advantages and potential facilities of new technologies in order to oppose the challenges which they themselves are one of the reasons. In order to conquer these challenges, there exist many ways. The most important is a way reflected in the international higher education statement in Paris UNESCO world summit in 1998 with emphasis on creation of new education environments to adapt with the information age and explanation of the cyber systems (Montazer and Dayyani, 2005).

Today, traditional approaches to education are no longer responsive and can't harmonize with current changes, but information and communication technology can be used in such a strong and powerful means to increase the quality and efficiency of education that change the traditional education systems and there is no longer any need to have physical presence in classes (Kia, 2009). On such basis, basic changes have occurred in higher education system and educational approaches have changed, too, in such a way that any person in any place at any time can be involved in learning needless of being physically present in the education place (Saeed et al., 2011). Most of these changes have included overseas trainings with using communication technologies, distance education or online education (Javdani, 2009).

Several studies confirm the fact that using technology in education has resulted in decreasing of education costs, time economy, increase in teaching and learning opportunities, increase in educational success and the possibility of rapid access to information (Omooei Milan Ghashghagh, Mehdinezhad and Yaghoobi, 2011). Also, with reference to the completed studies which showed that there is not so much difference between education with traditional approach and the cyber education with respect to knowledge level, attitude and skills (Russell, 1999; Karimkhani, Mousavinasab and Fayyazi, 2009; Moghadasi and Noroozzadeh, 2009; Khatooni et al., 2011 and Noorian et al., 2012) and also studies that pointed to the efficiency and no decrease in the educational quality in online education courses (Farahani and Keshavarz, 2003 and Fathi Vajargah, Pardakhtchi and Rabiee, 2011), it can be said that the development of online education and majors not only wouldn't result in the decline of learning but also, due to the advantages of online education over traditional education, it can be a good respondent to the increasing need to learn sciences in the world and especially Iran due to its population. In spite of these benefits, we should also mention the disadvantages of online educations including: decline of interpersonal interaction, the high cost of establishment and using computer facilities, the impossibility of accessing all persons to computer and its side services, high cost of using telephone lines and insufficiency of computer knowledge of the students (Shahbeigi and Nazari, 2011).

In recent years, the policy makers in education and training sections in many of the developing countries, including Iran, have paid special attention to online education (Rahimi and Yadollahi, 2011). This from one side and the increasing rise of the population from the other side clarifies the importance of development of such universities all over the world (Fazlalizadeh, Aghazadeh and Ahghar, 2012). Hence, little by little, online universities were established and began to work beside the traditional universities in the world and in Iran.

With regard to the present competitive situation, access to the suitable resources is the most apparent reason of the success of organizations. From among the production parameters, human resources is undoubtedly the most valuable factor, the most important wealth and the competitive advantage of any organization (Bahrami, 2011). Human resources is the only resource which is different from the other resources and doesn't have the negative features of other resources such as fatality and the possibility of imitation. Of course, by "human resources" we mean strong and knowledgeable human resources which are enhanced via human resources development systems and processes (Jazani, Taheri and Abili, 2010). This resource has a key role in providing services. Lack of any part of the organization like technology and financial resources can be repaired but lacking humans is irreparable or at least isn't reparable in short-term (Mohammadi, 2008).

"Human Resources" was a common term during the Second World War but in a period between the end of the war up to the 1960, the concept has been less discussed. From that time to date, "human resources" has got different definitions and meanings based on the type of the attitude and point of view. In the analyses by the economists, sometimes "human resources" is used as the reason of economic production equivalent with "workforce". Some, also, deduce human force, workers, employees or clerks from the concept (Seyed Javadin, 2007: 21). For Brook Bank (2008), also, to comprehend the concept of human resources and the scope of its responsibilities, we should notice the human resources occupation, human resources unit, human resources operations, human resources topics and human resources responsible (Binesh, 2008). Following, we would give some definitions for this expression.

In a definition, it has been stated that in order to produce what we want; a human resource should be employed. This human resource involves the productive share of the given work of those who work (Meyers et al., 2006: 3). Also, from Edwinson's (2000) point of view, human wealth includes knowledge, skill and experiences of the staff and managers and their effective response to the posterity. This wealth includes various elements like attitude, competencies, experiences and skills, implied knowledge and innovativeness, talent and the implied knowledge in the mind of the individuals in organizations. In universities, this wealth has been defined as a knowledge which human resources (teachers, researchers, Ph.D. candidates and the official staff) present to the organization which will exit from the organization by exiting of these persons (Bahrami et al., 2011 and Mehralizadeh, Shahi and Hosseni, 2011). The human factor is discussed under two parameters: workforce and management. Management includes designing, organizing and controlling of the production operation while "workforce" are those individuals who do the production operation according to the program planned by the managers of the organization (Eghtedari, 1980: 21).

The issue of human resources as one of the production parameters is not only limited to its quantity. Its quality is also very important. Although the population number and the age composition is important, and the symmetry and balance between population and other production parameters is necessary for the economic growth, the human resources quality with features like health, culture level, technical skills, discipline and the motivation to work is probably the most important factor in the economic advancement of the world countries. Though assessing the aforementioned variables is difficult, the important index of the human resources quality is the cultural level and the quality of social attitudes and values of the society, because if the culture level of the people of a tribe or nation enhances, their productive power increases and they will be more prepared to learn technical and occupational skills (Eghtedari, 1980: 21). Also, experience has shown that to achieve its

preplanned goals, any organization needs expert, motivated and creative human resources. Henceforth, a successful organization is an organization comprised of human resources with organizational culture and shared belief and goals, who give their experiences and knowledge to the organization (Ferdowsi University of Mashhad, 2012). Accordingly, human resources are considered the most important axis in increase or decrease of organizational efficiency. So, special attention should be given to them (Allahverdi, Farahabadi and Sajjadi, 2010).

Educating the skillful human resource may be the most important substructure of the development. According to most of the experts and theoreticians, today, teaching and learning sciences and acquiring the needed skills in expertise fields, has special importance and place in macro development as an unavoidable social necessity. This importance, especially its particular shape, is due to the fact that humans can operationalize their unlimited capabilities with the help of education accompanied by training (Tohidlou, Mirdamadi and Rezaei, 2011).

Excellent organizations are engaged with planning in the direction of their human resources strategy. They indicate that they need how many staff, with what qualities, for which positions and at what time and with using advanced strategies and techniques of employment, employ those individuals with necessary abilities and qualifications for membership in the organization. These organizations, also, plan and establish service compensation systems (wage and salary, reward, welfare advantages, health and sanitation) in a disciplined and organized manner in direction of their human resources, in parallel with organizational culture and in order to motivate, satisfy and preserve the human resources (Human Resources Management society of Iran, 2009).

The education system which produces grown, skillful, strong and deserved human resources in different social domains itself needs a considerable part of such expert and skilled human resources to survive and continue its revolutionary movement. The issue of human resources is considered in great and diverse organizations like Education and Training and Higher Education is considered as the main issue. Today, the increasing number of population and accordingly, increasing number of pupils and students have been resulted in the increase in human resources demand. It is axiomatic that the planning system for providing human resources in education should predict the necessary schemes on providing the required human resources in a balance with population changes and the number of pupils and students (Mohammadi, 2008). In the present study, human resources includes all interfering human parameters in teaching and learning like teachers, assistants, staff and experts, management and also the students.

In Isfahan, in spite of the increasing demand for higher education by practitioners, women, staff of different offices and institutions, and governmental, non-governmental and semi-governmental universities which are not responsive for their demand, the importance and necessity of developing online majors is clearly observable. Also, due to the fact that Isfahan is approaching the place of the industrialization pole and the youth working in the factories and offices or will enter the labor market in near future need endless and update learning considering the current international conditions, the importance of establishing and development of online fields will become clearer. However, the virtual faculty of the University of Isfahan presently accepts students in three major of Commercial Management, Business Administration and Library and Information Sciences at M.A.. Also, the faculty is attempting to present Language, Law and Computer Games but has not succeeded yet.

There have been conducted some studies relevant to the topic of this research some of them are mentioned: Hosseini Lorgani. Mir-Arab Razi and Rezaei (2008) have investigated the obstacles to Electronic Education in the education system of Iran. The findings showed that the most important obstacles are: 1. Technological, 2. Socio-cultural, 3. Pedagogical, 4. Legal/Administrative, 5. Strategic and 6. Economic.

In a research to investigate the major concerns about and participation obstacles of university professors in electronic education by Abdollahi et al. (2010), they stated that one of the main factors in operationalization of electronic learning in universities are the professors in departments and also many studies have reported the resistance of professors against accepting new educational technologies as the main obstacle and problem in the growth of virtual education programmers.

Ahmadi, Gholami and Azizi (2013) did a mixed-method research under the title of "investigating the bases of virtual education development in the University of Kurdistan: moving towards planning to present a suitable strategic framework". The quantitative results of the research showed that the condition of needed technical substructure for facilities and equipment, the proficiency of professors and students and educational planning in order to execute the virtual learning are among the main reasons in implementing virtual education in universities. The qualitative section, also, showed that, in general, professors have a traditional epistemology about the online education in its different aspects including teaching, evaluation, using educational resources and interaction with students. On this basis, they didn't regard the virtual education as a credible resource for knowledge construction and students' learning.

Haji Khajeloo, Yari and Bazdar Ghamcheh Ghie (2013), in a research done to investigate the challenges of information technology development in higher education at Shahid Beheshti university found that the fact that the educational programs are not based on multi-media environments, lack of national policy for using the

information technology in universities, the culture-making weakness to familiarize and use information technology and the insufficiency of officials and users' knowledge and skills in information technology in comparison with the theoretical average have been among the facing challenges in the development of information technology in this university. Also, the results of the study have shown that the major challenge has been the culture-making weakness in order to familiarize and use information technology (IT).

The analysis of Shea et al. (2005) showed that major obstacles in virtual learning from the professors' point of view are: time limitation, insufficiency of rewards and promotions, the issue of courses and lessons' ownership and the authority level of professors in presenting education, the burden of extra work of content production for on-line lessons, technical problems, internship and insufficient support and addition of new roles including helping professor and technical advisor and creating harmony with them.

In another research done by Panda and Mishra (2007), it was found out that using computer and e-mail has high correlation with positive view about electronic learning. The most important obstacles expressed by the faculty members are weak access of students to internet (limited access), dealing with education instead of accompaniment of education and training in electronic learning (lack of training), and in continuance, lack of technical support in university and no support concerning educational planning for electronic leaning and the like. The most important motives include: personal profits to use technology, creation of intellectual challenges and providing enough technical substructures.

In their analysis of the attitudes and orientations of professors and students about virtual education, Hsu and Chang (2009) concluded that professors and students hold positive attitudes about virtual education and regard it necessary for the development of higher education but believe that in order to increase the motivation of professors and students, more facilities and educational courses and efficient teaching strategies should be provided. According to results of this research, professors and students believed that for theoretical units, virtual education is more efficient. They also emphasized on the necessity of using multimedia content in virtual education.

In a report published by a group of Canadian universities cooperated in the education of virtual university (2012), the obstacles of the virtual university of Canada which need reconstruction and improvement are divided into four main categories: 1- resistance of the faculty members, 2- lack of expertise, 3- organizational and systemic barriers and 4- lack of resources.

Al-Molham (2014) has also stated that according to the papers and literature of the Saudi Arabia, operationalization of the virtual education in Arabia's higher education faces obstacles including negative view about the learning, shortage of time, lack of support and lack of education. As observed in the studies, in most of them, the role and importance of the human aspect like expertise, resistance of professors and extra burden which is human resources is clearly recognizable in the development of such kinds of educations. Hence, regarding the importance of knowing the obstacles of virtual education which was noted by the mentioned studies, the goal of the present research is answering the two questions below:

1.   What are the obstacles to development of virtual education in University of Isfahan in the realm of human resources?

2.   Is there significant difference among the obstacles regarding human resources on basis of demographic parameters (faculty, department, gender, academic level and experience)?

2.   Methodology

This study is of applied nature, because it seeks to find one of the problems [of higher education] and the results can be used abruptly after conduction (Seyed-Abbaszadeh, 2001). The method of this study is of mixed type and quantitative and qualitative methods have been applied. The data collection instruments have been interview, questionnaire and document analysis.

The population of this study included heads of the departments, the staff responsible for virtual education and IT and the faculty members at the University of Isfahan in 2012-2013 educational year. The number of the faculty members of the University of Isfahan is 420 from among whom 201 members have been selected to complete the questionnaire with the use of Cochran formula and Kerjesi and Morgan tables. The questionnaire was designed based on the results gotten from the interviews and in a researcher-made manner and contained 17 questions on Human Resources. The supposed average considered was 3.5. In order to interview the department heads and managers and staff active in the virtual education and IT section, 13 have been selected in purposeful manner based on their fields of study and responsibility. The analyses of findings from the interview in categorization process and the results of the questionnaires have been done with statistical software and using SPSS.

3.   Research Findings and Results

 In this section, the findings out of the interviews and questionnaires are presented.

First question of the study: What are the obstacles to development of virtual education in University of Isfahan in the realm of human resources?

Table 1: Mean, SD, t Level and Mean Rank related to obstacles of development of virtual majors regarding human resources

No.	Item	Mean	SD	t Level	df	α Level	Mean Rank	Rank
1	The low participation of professors in your field to present the major in on-line manner	3.92	1.63	3.214	150	0.002	9.70	
2	Th newness of the virtual education and existence of experienced and old professors in your field results in resistance over presenting the major online.	3.33	1.59	- 1.329	150	0.186	7.90	
3	Th insufficient strength of the pr professors in working with the required software in virtual education	3.23	1.57	- 2.043	150	0.043	7.75	
4	Usi professors merely as content producers and not using them to teach the content they themselves produced	3.84	1.86	2.287	150	0.024	8.86	
5	Reluctance of professors to transform their classes to online because they are concerned of being judged by many	3.39	1.73	- 0.714	150	0.476	7.80	
6	Professors being not update in scientific and technological issues	3.12	1.62	-2.835	150	0.005	6.82	
7	Reluctance of professors to present their courses online	3.83	3.83	2.759	150	0.007	9.74	
8	Weakness of professors in familiarity with teaching method, learning and evaluation online.	3.48	3.48	- 0.136	150	0.892	8.42	
9	Lack of the feeling of need by professors to present the major online	4.01	4.01	4.701	150	0.001	10.44	**Second**
10	The high dense of professors' responsibilities in the "attendance" education section and other academic responsibilities	4.07	4.07	6.063	150	0.001	10.91	**First**
11	Low and demand and reluctance of students about their courses being presented online	4.25	4.25	4.187	150	0.001	9.84	
12	The weak ability of students in using virtual software specially in B.A.	3.50	3.50	0.021	150	0.984	7.83	
13	The weakness in professor-student interaction and communication specially in virtual education section	4.03	4.03	4.125	150	0.001	10.17	**Third**
14	Weakness in using educational software suitable for each major by the staff, experts and assistants	3.68	3.68	1.357	150	0.177	8.88	
15	The shortage of skillful experts and officials in virtual education	3.72	3.72	1.724	150	0.087	9.20	
16	The low-flexibility management	4.09	4.09	3.360	150	0.001	9.25	
17	Management with insufficient expertise in virtual education	3.98	3.98	3.316	150	0.001	9.49	

The findings of table 1 show that in the questionnaire concerned with the obstacles of development of virtual majors regarding human resources, the calculated t for the items 1, 4, 7, 9, 10, 11, 13, 16 and 17 is significantly higher than the supposed mean, for the items 2, 5, 8, 12, 14 and 15 is at the same level with the supposed mean and for the items 3 and 6 is lower than it. The highest mean rank, respectively, belongs to items 9, 10 and 13.

Table 2: resulted criteria regarding human resources (results of the interviews)

No.	Obstacles regarding Human Resources	Frequency	Pe Percentage	Rank
1	Th inability of professors and experts in electronic education	8	61.6	First
2	Th lack of motivation and cooperation of professors to make the majors online	7	53.9	Second
3	Presentation of courses being out of the responsibility of professor and presentation of them by experts and online section ass assistants	5	35.8	Third
4	Reluctance and not accepting the students	4	30.8	
5	Professors' time shortage and high dense of work	4	30.8	
6	No feeling of the need to establish majors online	3	23.1	
7	Th inability of students specially in the B.A.	2	15.4	
8	U underestimation the role of professors to merely a content provider and no enjoyment of special advantages	2	15.4	
9	Professors not being update in teaching	2	15.4	
10	L low number of professors and the need to employ professors and and experts	2	15.4	
11	Th the need to have powerful executive cadre	1	7.7	
12	Th weakness of the supervisory aspect of the management	1	7.7	
13	Th the need for purposeful selection of the students	1	7.7	
14	Usiusing merely some professors and not others	1	7.7	
15	Th the need for deep evaluation of students' attitudes	1	7.7	

In this respect, the inability of professors and experts with 61.6%, the lack of motivation and cooperation of professors to make the majors online with 53.9% and presentation of courses being out of the responsibility of professor and presentation of them by experts and online section assistants with 35.8% were introduced as the most important obstacles.

Table 3: comparison of the mean number of obstacles of the development of virtual majors regarding human resources with presupposed mean of 3.5

Group	Mean	SD	Mean Deviation	t	df	Alpha Level
Obstacles of the development of virtual majors regarding human resources	3.74	0.81	0.066	3.614	150	0.001

According to the findings of table 3, the mean number of obstacles of the development of virtual majors regarding human resources is 3.74. Calculated t has been greater than the table's t. So, obstacles of the development of virtual majors regarding human resources is higher than the supposed mean which means that in this respect, obstacles are higher than the determined supposed mean (3.5).

Second question of the research: Is there significant difference among the obstacles regarding human resources on basis of the demographic parameters (faculty, department, gender, academic level and experience)?

Table 4: Multi-Way ANOVA of numbers for obstacles of developing virtual majors regarding human resources on basis of the demographic parameters (gender, academic level, experience and faculty)

Factor	Total Sum of Squares	df	Mean of Squares	F	Alpha Level
Gender	0.633	1	0.633	1.015	0.317
Academic Level	1.708	3	0.568	0.911	0.440
Experience	1.177	3	0.392	0.629	0.598
Faculty	3.571	6	0.595	0.955	0.462

The findings appeared in table 4 show that there is no significant difference among the respondents' attitudes about obstacles of developing virtual majors regarding human resources on basis of gender, academic level experience and faculty.

Is there a significant difference between obstacles of developing virtual majors regarding human resources in humanities and engineering majors?

Obstacle	Major	Mean	SD	t	Alpha level
Human	Engineering	3.73	0.82	- 0.190	0.850
	Humanities	3.75	0.80		

According to the findings of table 5, there has not observed any significant difference between mean number of obstacles of developing virtual majors regarding human resources in humanities and engineering majors.

4.   Conclusion

The findings resulted from the first question have shown that in the realm of human resources, the calculated t was lower than the average level for the items 3 and 6 which means that they were not considered as the obstacles in such respect, but for the items 1, 4, 7, 9, 10, 11, 13, 16 and 17, it was significantly higher than the average rate, hence, these are the obstacles regarding human resources. Also, according to the findings of table 3, the mean number of obstacles of developing virtual majors regarding human resources has been 3.74 and the calculated t was greater than the table's t, henceforth, the obstacles of developing virtual majors regarding human resources were higher than the average rate. From among these obstacles, the highest mean rank respectively belonged to items 10, 9 and 13. Also, in the interviews, it was shown that although the results were, in general, convergent with the interviews and the obstacles of this respect were verified in the interviews, but it isn't in parallel with three main obstacles in the interviews and as seen in table 2, in human resources domain, the highest frequency belonged to professors and experts' inability and lack of expertise regarding electronic education, lack of motivation and cooperation of professors to make the majors online and presentation of courses being out of the responsibility of professor and presentation of them by experts and online section assistants, respectively.

We can mention two points about this difference. The first one is that the virtual section has been analyzed by two different views (those who were in the middle of the issue and the outsiders) and the other one is that because professors have not had the experience of working in the virtual section, they think that they can easily work with softwares and teach and evaluate online, so, they think that because they are considered strong professors in the attendance (physical) education form, they have enough expertise in online education, too. But those individuals who cooperated with the online form, though selected from among the strong professors of the University of Isfahan, still sometimes face problems and that's why they stated that they are not professors and experts in online education. Also, this was the reason why there existed two items of "inadequate ability of professors in working with the softwares necessary for online education" and "professors not being update in scientific and technological fields".

In the quantitative part, the obstacle of "high dense of professors' responsibilities and academic duties" seems to be because of the fact that in addition to teaching, professors have other responsibilities like guiding students' theses in different levels and sometimes playing role as department head or vice-dean of the faculty. The resulted tiredness of the professors due to such responsibilities can result in their decrease in motivation to cooperate with the virtual section which itself means an extra responsibility. Also, one of the interviewees stated that the number of professors is low and the criteria for employing professors are strict and the process is very slow and difficult and this led to the mentioned burden for the professors. Hence, slow and difficult conditions of University of Isfahan to employ individuals as faculty members is the other reason why professors are under high burden of duties to fulfill which, accordingly, causes low number of professors in each department and the professors can accept new responsibilities due to their multiple duties.

The professors' feeling of lack of need is seemingly because they think that even in the attendance type, there exist a number of problems like inability to teach and low knowledge about teaching methods, now if virtual education is going to be developed, not only these weaknesses will transit to the online section but also because of the nature of online education they will double, because online teaching seems much more difficult than attendance teaching (due to the lack of physical presence). Also, the reason can be that they have not noted the importance of constant leaning and think that mere existence of attendance section would make teaching and necessary learning possible. Also, some professors may regard the development of virtual education useless because of the existence of numerous problems in the online section one of which is lack of any organized planning. It is possible that the professors stated that because of the reluctance of students, i.e., up to now; there were not so much requests on part the students to hold online classes and majors.

Here again, the weakness in professor-students interaction can be due to the fact that the professors consider enjoyment of teaching in interacting with the students. Also, they may have stated that because of the inability (of professors and students) to work with interactive softwares. Another point could be lack of the necessary equipment in online section in order to make the classes interactive.

In the interviews, inability and lack of expertise of the professors and experts can be because professors have problems with computer systems and even sometimes university online systems. Another point is that there exist only two fields of "IT in Higher Education" and "Educational Technology" in the country which accept very

limited number of students and the first one only at the Ph.D. level, which can't well respond to the need to train strong professors and experts in electronic learning. Also, because according to the findings, in terms of demographic features, most of the professors at the University of Isfahan had more than five years of experience, possibly their expertise level was lower than the other professors and this is because of special generation features and not for their inability; because in the present generation, most contents are delivered via electronic tools (internet, electronic journals, electronic books) whereas even with ten years of gap we can observe that most of the information were being delivered in written form and via the written tools (book, journal, magazine).

According to one of the interviewee's answers, one reason why professors didn't have motivation and cooperation is that they are concerned with being judged by more people when they transform their classes to online version (due to the population increase). On such basis, few professors are ready to change their "real" courses to "virtual". Professors are usually not updated in their teaching (in case they are update, their fear of being evaluated would be removed. The reason they are not update is the shortage of time. Of course, it can have other reasons, too. For instance, some of the interviewees stated that online education doesn't have the needed effectiveness. Respectively, one of them expresses that "if you want to virtualize a major like theology, first you should convince the professors that the output of the virtual education is similar to that of the attendance type and after finishing such non-attendance course, the students would have the similar strength and ability as the attendance form". Here, the other reason can be worry of the professors for their role change or about losing their job which itself results from lack of ability in technology and electronic education. They may be worried that they will be replaced by a more skilled person. Of course, although some of the conducted studies (like those mentioned in the literature review) have verified the effectiveness of online courses, still the need for institutionalization and persuasion is felt. Also, before completing the questionnaires, some professors stated that even in the attendance educational department, there are lots of problems and obstacles, so why instead of removing these problems, we should remove those for the virtual education. They believed that instead of developing online education, we should try for the betterment of the attendance sections because in case of developing virtual sections, new problems would be added to the existing ones. This shows the resistance some professors shown about coming of a new type of education. Of course, we should note that their view that first the attendance section problems should be removed is correct. This is the same issue which one of the interviewees referred to and stated that "before establishing a new major, it should be noted that if the formation of that major doesn't have the required criteria and created an extra burden, we shouldn't deliver that". So, we should refrain from development without any plan.

Regarding the issue that professors don't have the responsibility of presenting the courses; it seems that because they like teaching, professors tend to do the teaching process themselves and we should note that according to the statement of one of the interviewees, the professors themselves are the best ones to deliver the courses because they have the needed methods, tools and other necessary prerequisites for each part of the teaching process and can apply them better based on their experiences, than the one with no teaching experience but should execute this difficult task in a more difficult environment (virtual environment).

The findings of the present study has been in line with the findings of Ahmadi, Gholami and Azizi (2013) on the interaction parameter and Rezai, Movahed Mohammadi and Asadi (2009) on existence of low literacy or illiteracy in educational technologies and resistance of the faculty members to hold virtual courses, Abdollahi et al. (2010) have reported the professors' resistance to accept educational technologies as the basic obstacle and problem on the way of development of virtual education programs and also Talai Mash'ouf and Momeni-Rad (2008) who regarded the managers' lack of sufficient knowledge among the obstacles of the development of information technology in Iran. The present study is also harmonic with Shea et al.'s investigation (2005) which, concerning the major obstacles in electronic learning, pointed to the authority rate of professors in delivering the education and the extra duty of providing content for online courses and the report of a group of Canadian universities (2012) who regarded the obstacles of the virtual university of Canada as: resistance of the faculty members and the lack of expertise.

The findings resulted from the second question in table four has shown that there has not been significant difference between the respondents' attitudes regarding obstacles of virtual majors' development concerning physical resources according to gender, academic level, experience and faculty. The reason may be that because this study has been done only among the faculty members, managers and experts from different faculties of the University of Isfahan and the population was relatively homogeneous and their knowledge about virtual educations had been relatively the same, there can't be seen any difference among the demographic variables including faculty, gender, academic level and experience. Professors at any academic level, having any amount of experience, with any gender type and from any faculty enumerated the same cases as obstacles.

The findings are in line with Taghvaei (2005) who concluded that there is no significant difference between the managers' opinions about obstacles facing using virtual education according to academic degree, school type and their job experience but not convergent with its findings on the significance of the mean of managers'

opinions on basis of gender. With regard to the results of the study, in order to remove the obstacles of development concerning human resources, the actions below are recommended:

1.   The virtual section should hold seminars and conferences on online education and its merits in order to convince and institutionalize virtual educations among professors and students.

2.   Also, in order to employ new faculty members, it's recommended that the conditions and processes of employment become easier and quicker so that professors can join the departments quickly and work division occurs.

3.   Decreasing the high burden of professors and their responsibilities via dividing the duties among those professors with less responsibilities and employing new and expert faculty members.

4.   Creating interactive blogs and websites for the virtual education section to increase the interaction of professors and students.

5.   One of the suggestions for the professors to meet the needs to work with the computer, class environments and online courses is that the virtual section gives the possibility of presenting courses online via providing them with in-service education.

6.   Another suggestion is to prepare expert assistants for the professors. For example, each professor has an M.A. student in IT besides him/herself to do the technical inputs, of course with its own salary.

7.   Still, the other suggestion is that in order to provide the expert human resource, some strong students receive scholarships for expertise in electronic education, study in countries successful in virtual educations and accept the responsibility of coordinating such a section (i.e. virtual) after they return. Some strong professors may be, also, asked to learn the needed skills while passing in-service courses inside or outside of the country. Of course, holding internal courses is on the virtual section itself and this section should pay the foreign class tuition, too.

Finally, concerning the present condition of the virtual section in the University of Isfahan, it is suggested that before expansion of the majors, first the obstacles be removed via quality improvement and strategic planning, then when the gap between the present situation and the ideal situation lessens perfectly, new major be expanded.

5. Resources

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