CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.1122600

Available online at: http://www.iajps.com Research Article

AN INVESTIGATION OF THE PERSONNEL'S SATISFACTION WITH THE VIRTUAL IN-SERVICE TRAINING COURSES

Abdolreza Gilavand*

Expert on Faculty Appointments, Department of Education Development Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Abstract

Introduction: *Educational systems are in search of new approaches that, in the face of global developments, have the ability to reconstruct and adapt. Therefore, this research has been done in order to study the personnel satisfaction of Jundishapur University of Medical Sciences in Ahvaz with the virtual in-service training courses.*

Materials and Methods: *This descriptive-analytic study has been conducted in November 2014 and in three categories of satisfaction with the content, satisfaction with the course delivery method and satisfaction with the virtual education program. A sample of n=211 was selected randomly from 1052 subjects. For data collection, a standardized questionnaire based on Likert scale was used. To analyze the data, also descriptive statistics such as frequency, mode, mean, one way ANOVA, and independent t-test were used by the statistical software SPSS version 21.*

Results: *The highest level of satisfaction was obtained from the virtual education program with an average satisfaction of 4.17 (from the maximum score of 5) and 80.65% agreed, and the least satisfaction was obtained from the content of the courses with an average satisfaction of 3.76 and 69.43% agreed. Background variables such as work history, type of employment, degree and gender had no effect on the personnel satisfaction with participation in virtual education courses. (p>0.05).*

Conclusion: *So considering the considerable satisfaction of employees with virtual training courses, the need for serious planning for an appropriate system deployment is necessary for full implementation of this method.*

Keywords: *Personnel, In-service Training, Virtual Education, Iran.*

***Corresponding author:**

Abdolreza Gilavand,

Expert on Faculty Appointments,
Department of Education Development Center,
Ahvaz Jundishapur University of Medical Sciences,
Ahvaz, Iran. Email: gilavand_a@ajums.ac.ir

QR code

Please cite this article in press as Gilavand A., ***An Investigation of the Personnel's Satisfaction with the Virtual In-Service Training Courses****, Indo Am. J. P. Sci, 2017; 4(12).*

INTRODUCTION:

Personnel in-service training, along with personnel research backgrounds, have a positive effect on the annual evaluation score and job promotion (1-3). Continuing education of the personnel of the organization is one of the most fundamental and sustained methods for the development of individuals and organizations. The education of human resources leads to the development of individuals' talents, the development of methods and techniques for doing work, learning knowledge, enhancing job skills and avoiding cost loss for the organization (4). The education of human resources in the organization has not been systematically studied until the advent of the school of the scientific management in the late nineteenth and early twentieth centuries. Due to the rapid growth of cities, the growing number of government departments and the increasing complexity of the public affairs office in the early twentieth century, the attention was paid to the personnel education. The first signs of regular human resource education are observed in the school of the scientific management. In Iran, before the 1310s, also the education of personnel was common in the traditional way and apprenticeship, but from the beginning of the decade the education was started in a sporadically organized and new way (5). With the advent of computers to the human life and, in parallel, the expansion of the Internet network, many definitions and social services have been altered or are undergoing fundamental change, and the effects of these changes appear more in everyday life (6). So far, many studies have been conducted by different educational methods, but from these studies, various results have been obtained due to differences in educational content and differences in the audience. One of the traditional methods of education is the lecture method used by most universities in the country and in the majority of classes held in all lessons. In this method, the teacher's oral expression is used to explain and understand the subject (7). Studies have shown that a statistically significant difference was found between the amount of learning in both traditional and multimedia-based methods, and the amount of learning in the multimedia-based method is more than the traditional method.

This finding is consistent with the results of some studies that have compared traditional and new methods in education (8-9). Studies also have shown that in traditional education methods, the content memorized by the learner will last for a maximum of eight months, be forgotten and need to be repeated. Therefore, teaching a lesson as a lecture by a professor is not equivalent to learning it by the learner. Learning is, in fact, the acquisition of the knowledge and skill and its practical application, which should continue for a long time (10). A research was conducted in order to compare two multimedia-based and traditional methods in general practitioners' retraining courses, and indicated improvement in the learning process of those who have been trained in a multimedia-based manner (11). Ebrahimi et al. (2011) showed that a significant percentage of the personnel of Mashhad University of Medical Sciences confirmed and preferred the method of virtual education, and agreed on its effectiveness; besides, hardware and software facilities are needed for this kind of education (12). Alavi et al. (2010) in a study titled "The Satisfaction of Tehran University of Medical Sciences personnel with e-learning in-service courses" showed that the highest mean of the personnel satisfaction was related to satisfaction with the program, and the least was related to satisfaction with the content of the courses. As a result, they stated that the personnel significantly dissatisfied with e-learning courses (13), but in another study (2011) entitled "The viewpoints of the personnel of the Tehran University of Medical Sciences about the usability of the electronic in-service training courses" they have found that although the e-learning courses usability is considered acceptable by the personnel of the university, the computer knowledge of the personnel and their access to hardware and software facilities is effective on increasing usability of educational courses (14). In a research titled "Software Platforms as Multimedia Education and Educational Environment in Dentistry Education", we introduced and evaluated the use of multimedia education method in dentistry and the positive effect of this method on Dentistry education (15). Certainly, each university and educational institution, before designing and launching e-learning courses, measured the degree of readiness of the university or the relevant institution and examined the factors involved in launching these courses. The results of research in other educational institutions show that the indicators of the human resources, budget, technological and psychological readiness are the effective factors on designing virtual learning courses. Also, the index of educational level can be mentioned; that is, with the increase in the level of education, the level of readiness is also increased (16) Jundishapur Ahwaz University of Medical Sciences and Health Services having about 650 faculty members, 7,000 students, and 15,000 non-faculty members eligible for education with diverse job descriptions throughout Khuzestan province is one of the prestigious and type I universities in the country, and of the Ministry of Health and Medical Education, whose name (JundiShapur) is taken from a university

of the same name and 1744 years ago, located in the north of Khuzestan province, which is considered as the first world's best known medical sciences university. The unavailability of the required training courses in educational institutions out of the organization, the ineffectiveness of existing educational courses (17), the problems caused by the presence of personnel of some units and centers in person classes and the resulting absence in the workplace (based on the feedback provided by the managers of the units), the cost of the personnel participation in the courses of private educational institutions, and the possibility of setting up the necessary hardware infrastructure for the use of e-learning courses need a kind of virtual education (e-learning) that can meet the potential needs (teaching and learning) of the personnel, speed of transfer concepts, flexibility, learner-based, access to update and new information and saving time and expenses. On the one hand, satisfied and motivated human resources play an important role in advancing regulatory policies and programs. Understanding the personnel satisfaction with their work can help managers improve human resources productivity. The purpose of conducting in-service training is to enhance the performance of the personnel of the organizations. On the other hand, effective learning depends on the personnel satisfaction with training courses. Therefore, the overall aim of this study is to study the satisfaction of the university personnel with virtual in-service training. According to the pre-announced reasons, this university has been offering virtual in-service training since 2013. Given that the provision of virtual in-service courses has been carried out in many universities and other organizations, such as Tehran, Mashhad, Shahid Beheshti Universities of Medical Sciences, and etc., but at this university, due to lack of necessary infrastructure, it is very new.

MATERIALS AND METHODS:

This descriptive-analytic and cross-sectional study has been done in November 2014 in order to study the satisfaction of personnel at Jundishapur Ahwaz University of Medical Sciences and Health Services in the field of held virtual in-service training courses. The statistical population was all 1052 formal, informal and contractual personnel of the Central Organization and the faculties located on the campus of the University who at least have a degree of diploma. Sampling has been done randomly by selecting 20% of the trained personnel (n=211) who completed these courses. The data collection tool was a questionnaire and an external sample designed by Hairston (18), which includes two questionnaires: Demographic information questionnaire and self-administered questionnaire. Alavi et al. in a research at Tehran University of Medical Sciences, measured the validity of this questionnaire using the views of professors and experts (13). The validity and reliability of this questionnaire was re-evaluated and confirmed. Its reliability has been obtained using Cronbach's alpha coefficient for the personnel satisfaction with the content of the courses 78%, the personnel satisfaction with the course delivery method 82%, and for the personnel satisfaction with the virtual education program 83%. Individual information questionnaire included the variables of age, gender, work experience, education, occupation, employment status, place of employment and organizational post of non-faculty personnel of Ahvaz Jundishapur University of Medical Sciences. Self-administered questionnaire contained 17 5-option questions, with Likert scale (1-5 points) used to study the satisfaction of personnel of Jundishapur University of Medical Sciences in Ahvaz regarding the courses of in-service virtual training in three categories of A: The personnel satisfaction with the content of virtual education courses: 1) the relevance of the content of the virtual training course to the work of the personnel , 2) the suitability of the content of the virtual educational course, 3) good organizing the content of the virtual training course, 4) transparency of the presentation of the content and coordination with Behavioral Objectives, and 5) using Good Examples and Images for a Better Understanding of Content in the virtual training courses; B: The Personnel Satisfaction with the presentation method of the virtual Courses: 1) forcing the personnel to Think In the case of content, 2) increasing the quality of learning, if possible, using the professors' views, 3) the suitability of this virtual learning method for this course (held), 4) easy understanding of the content of the educational course using virtual method, 5) satisfaction with the way of presenting the content of virtual courses, 6) better learning by this virtual educational method, and 7) not deal with the problem in the virtual course study and C: The personnel satisfaction with the virtual education program: 1) the personnel interest in this virtual training program, 2) the personnel satisfaction with the participation in this training course held, 3) present this special training course by the virtual education method, 4) use virtual learning for similar subjects, and 5) prefer to choose this learning method if the personnel have the right to choose, including fully agree=5, I agree=4, I have no idea=3, I disagree=2, and I totally disagree=1. The non-tendency score was calculated by sum of scores from the Likert scale for all 17 questions of the questionnaire. In this research, the score obtained below 3.5 is considered as disagree, and the score

between 3.5 and 5 is considered as consistent with the virtual in-service program. Also, the average satisfaction of the personnel and agreement percentage is provided and analyzed in the three categories in triple tables. In order to analyze the data, also descriptive statistics such as frequency, mode, mean, ANOVA and independent t-test were used by statistical software SPSS version 21. At the end of the questionnaire, also suggestions and strategies were suggested from the viewpoint of non-faculty personnel of Ahvaz Jundishapur University of Medical Sciences. Meanwhile, the necessary ethical considerations, including the consent of the subjects and assuring them that their opinions are confidential, as well as the coordination with the research assistance of the university and the department of the university personnel education have been observed in this study.

RESULTS:

Among 1052 personnel in the central organization and faculties located on campus with a minimum degree of diploma, 211 persons participated in the study by completing the questionnaire in which 114 persons (54%) worked in the administrative department, 42 persons (20%) of them worked in the health care department, 34 persons (16%) worked in educational and cultural affairs, and 11 persons (5%) worked in the field of information technology, and 10 persons (5%) worked in other departments including technical, engineering, social services. Among the surveyed personnel, 105 persons (50%) were formal, 74 persons (35%) were informal, and 32 persons (15%) were contractual. Also, 116 persons (55%) were male, and 95 persons (45%) were female. The average working experience in the studied population was 10.8 ± 5 years, with a minimum of one year and a maximum of 28 years. The degree of education of 11 persons (5%) was Diploma, 42 persons (20%) had Associated Degree, 148 persons (70%) had B.A., and 10 persons (5%) had M.A. degree and more. Also, the mean comparison of the views among the four groups with diplomas, bachelor, master and PhD did not show a significant difference between the four groups using one-way ANOVA. ($p>0.05$).No significant difference was found between the two male and female groups in terms of mean comparison using independent t-test. This indicates that the variables of age, gender, and education had no effect on the personnel views.

Table 1: The personnel satisfaction based on the average score and the agreement percentage of the three general categories examined

No.	Question	The mean agreement	The agreement percentage
1	The personnel satisfaction with the virtual courses	4.17	80.65
2	The personnel satisfaction with the method of providing the virtual courses	3.99	75.22
3	The personnel satisfaction with the content of virtual courses	3.76	69.43

Table 2: The mean personnel satisfaction with the content of the virtual courses based on the score and agreement satisfaction

No.	Question	The mean agreement	The agreement percentage
1	The suitability of the content of the virtual training course	3.79	73.94
2	The relevance of the content of the virtual training course to the personnel job	3.77	68.72
3	Transparency of presentation and coordination with behavioral goals	3.76	69.67
4	The use of good examples and illustrations to better understand the content of the virtual training course	3.72	65.4
*	Average of 4 items (up to a maximum score of 5)	3.76	69.43

Table 3: The mean personnel satisfaction with the presentation method of the virtual courses based on the score and agreement satisfaction

No.	Question	The mean agreement	The agreement percentage
1	The personnel satisfaction with the method of providing the virtual courses	4.14	84.36
2	The suitability of this virtual learning method for this training course (held)	4.09	78.67
3	Learn better with this virtual educational method	4.01	75.36
4	Not deal with the problem in study a virtual educational program	4.01	74.88
5	Forcing the personnel to think about the content	3.93	70.14
6	Increase the quality of learning, if possible use the comments of the professor	3.89	71.55
7	Easy to understand the content of the training course using the virtual method	3.84	71.56
*	Average of 4 items (up to a maximum score of 5)	3.99	75.22

Table 4: The mean personnel satisfaction with the virtual courses' programs based on the score and the agreement satisfaction

No.	Question	The mean agreement	The agreement percentage
1	Prefer to choose this learning method if the personnel have the right to choose	4.35	87.2
2	Use the virtual learning for similar subjects	4.24	81.04
3	The personnel interest in this virtual training program	4.16	81.46
4	The personnel satisfaction with the participation in this training course held	4.09	78.77
5	Present this special training course by the virtual education method	4.04	78.68
*	Average of 4 items (up to a maximum score of 5)	4.17	80.65

DISCUSSION:

The highest level of satisfaction was obtained from the virtual education program with an average satisfaction of 4.17 (from the maximum score of 5) and 80.65%, and the lowest was the satisfaction with the content of the courses with an average satisfaction of 3.76 (from the maximum score of 5) and 69.43%. Considering the degree of satisfaction relatively less than the content of the courses, the promotion of the content quality of these courses is necessary. The background variables such as gender, work experience, type of employment, and education degree did not affect the personnel satisfaction with participation in virtual education courses, which is consistent with the study of Alavi et al. (13) and not consistent with the study of Reed et al. (16). Also, at the end of the questionnaire, two questions were asked: What do you think is the most important problem for optimal implementation of virtual in-service training courses? and what solutions do you recommend to solve it? The personnel suggested that academic units use one another's experiences in reducing and removing barriers to the deployment of a virtual in-service training system, make efforts to convert the negative attitude of decision makers toward the virtual education to positive attitudes and allocate adequate credit for the virtual education. The university should also design infrastructure and use hardware and software specialists, improve and promote existing organizational culture, reduce and remove the potential bias and resist to technological change, make senior managers familiar with information and

communication technology capabilities, and make the professors and personnel learn to master the English language and the computer language.

The results of this study were consistent with the study results of Alavi et al. (13), Alavi et al. (14), Ebrahimi et al. (12), Khorramirad et al. (8), Zarifsanayei et al. (11), Fardanesh (20), Pishgoie (2012), Ataei et al. (10), Salarjan et al. (15) and Omoi Milan et al. (21), and confirms the findings of the present study. Also, the results of this study and the similar research mentioned above consider the conditions and possibilities of deploying a virtual in-service training system as very important. A virtual in-service training system has been considered as a complementary to updating educational content, faster and more useful information transfer, creating lifelong educational opportunities, and compensating for traditional education deficiencies, and it addresses the problem of service-quit for education out of the organization and supports short-term and long-term goals.

In the technical-technological aspect, it is possible to develop a strategic plan for launching a communication platform between units, form a virtual circle at the university education unit for controlling, planning and developing educational texts, increase the number of computers and adopt measures for the availability of high-speed Internet for managers and professors, provide fair computer facilities for all units, necessary and sufficient hardware and software equipment, and the serious support of hardware and software affairs by the university information and communication technology unit. In the socio-cultural aspect, it is possible to adopt measures for the public familiarization of the personnel with virtual education, adopt measures to control ethical issues in web-based education, sending experts and managers to visit organizations that have a virtual education system, familiarize the personnel with the advantages of the virtual education, create confidence in the authorities through presenting models in similar organizations and determining the cost-income table based on the consequences of implementing the proposed system and presenting it to the hierarchy. In the legal-administrative aspect, it is possible to develop standards for the validation of materials and educational content, create electronic security through cryptography, develop a legal framework to support the innovative initiatives of the virtual education, classify the educational content based on the amount of access, purchase related software through the approved organizations, and develop the executive instruction of the method of carrying out the work and determine the priorities and steps in accordance with the approval of the form of the meetings. And in the educational aspect, it is possible to produce and distribute appropriate programs and software in accordance with the university education system and the work needs of the personnel considering the complexity of existing software, include IT familiarization courses, develop the virtual education systems for the development of team skills of professors, designers, and technology educators for designing network teaching materials, creating e-libraries with print publications, need assessment and identifying new educational problems before equipping educational centers and hardware entry. In the strategic aspect, it is possible develop clear strategies for the university education department and design a comprehensive IT vision in the field of identifying educational missions in the field and the definition of the implementation of training in the form of a project; and in the economic aspect, the coordination and partnership of the managers in the field of investment in the fields of virtual education, the allocation of budget required to implement the virtual education at the university and convincing the IT and communication department for financial assistance through paying IT budgets seem possible (22).

CONCLUSION:

Regarding the considerable satisfaction of the personnel with virtual courses, the necessity of serious planning regarding the deployment of an appropriate system seems necessary for full implementation of this method.

This article has been also published in the Persian language in Educational Developement of Jundishapur Journal. 2015; 6(3): 253-260.

REFERENCES

1. Gilavand A. Quality Assessment of Staff in-service training from View Points of Employees Ahvaz Jundishapur University of Medical Sciences. Future of Medical Education Journal. 2016; 6 (2): 42-46 doi: 10.22038/fmej.2016.7516

2. Gilavand A, Dadgarinejad A, Pezhman M. Individual Barriers to doing Research among Non-faculty Staff of Ahvaz Jundishapour University of Medical and Health Services, World Journal of Pharmacy and Pharmaceutical, 2015; 4(4): 123-133

3. Barekat Gh, Gilavand A. Evaluation of the in-Service Training Courses Impact on Empowerment of National Iranian South Oilfields Company's Employees. Journal of Academic and Applied Studies 2015; 5(8): 56-70.

4. Roux LL, Oosthuizen, H, The development of an instructional design model as a strategic enabler for sustainable competitive advantage, South African Journal of Business Management, 2010; 41(1): 420-429.

5. Fathi Vajargah, K, Familiarity with staff in-service training, Publication of the Ministry of Culture and Islamic Guidance, 1995; 21 [in Persian]

6. Shooriabi M, Gilavand A. Investigating the Use of Smartphones for Learning Purposes by Iranian Dental Students. World Family Medicine. 2017; 15(7): 108-113. URL: doi: 10.5742/MEWFM.2017.93024
7. Gilavand A, Shooriabi M. Investigating the Impact of the Use of Mobile Educational Software in Increase of Learning of Dentistry Students. Int J Med Res Health Sci. 2016; 5(12): 191-197.
8. KhoramiRad A, Heidari A, Ahmari Tehran H, Comparison of Two Self-Learning Methods (CD-Rom or Booklet) for Physician Education about Reporting Diseases Cases, IJME, 2011; 11(2): 149-158.
9. Saeedinejat S, Vafaeenajar, A, The Effect of E-Learning on Students' Educational Success, IJME, 2011; 11(1): 1-9. [in Persian].
10. Ataei N, Panjehpour, M, Comparison the Effectiveness of Problem Based Learning with Lecture-Based Method in Teaching Metabolic Biochemistry, IJME / Special issue for Educational Development and Health Promotion, April, 2012; 11(9): 1318-1325. [in Persian].
11. Zarifsanaiey N, Karamizadeh Z, Faghihi A, et al, The Comparison Study of Knowledge and Skill of Physicians before and after Contribution in Traditional and Electronic Continuous Medical Education, Diabetic Coarse, 2012; 3(2): 13-15. [in Persian].
12. Ebrahimi, S, The views opinions of employees Mashhad University of Medical Sciences on the in-service training programs offered online, Media cell Magazine Medical Education Development Center, Mashhad University of Medical Sciences, 2011; 4(6): 16-11.[in Persian]
13. Alavi Sh, Shariati M, Investigating Employees' Satisfaction with E-learning Courses in Tehran University of Medical Sciences, Iranian Journal of Medical Education, 2010; 10(3): 200-210.[in Persian]
14. Alavi Sh, Sarmadi, MR, Employees' opinion in Tehran University of Medical Sciences (TUMS) on usability of in-service electronic training courses, Iranian Journal of Medical Education, 2011; 10(4): 374-382.[in Persian]
15. Salajan FD, Mount, GJ, Leveraging the Power of Web 2.0 Tools: A Wiki Platform as a Multimedia Teaching and Learning Environment in Dental Education, Journal of Dental Education, 2012; 19(4): 427-436. [in Persian].
16. Red ER, Hanna GB, Tesalonica TB, et al, An assessment of the e-Learning readiness state of faculty members and students at Malayan college Laguna, International journal of the computer, the internet and management, 2013; 21(3): 20-26.
17. Gilavand A. A Study of the Growth and Flourish of Ahvaz Jundishapur University of Medical Sciences; A Cultural History. International Journal of Medical Research & Health Sciences. 2016; 5(11): 83-86.
18. Gilavand A. Ahvaz Jundishapur University of Medical Sciences over Years; the History of AJUMS. Jentashapir Journal of Health Research. 2016; 7 (5) DOI 10.17795/jjhr-42677
19. Hairston, NR, Employees' attitude toward e-learning: Implications for policy in industry environments [dissertation], University of Arkansas. 2007.
20. Fardanesh, H, Theoretical Foundations of Instructional Technology, 3rd ed, Tehran: Samt Publication, 2012; 3(3): 113-171.[in Persian]
21. OmoeeMilan Ghashghagh M, Mahdi Nezhad V, Yaghoobi, NM, Assessing Factors Affecting the Tendency to Use Electronic Learning Systems among Faculty Members, Magazine of E-Learning Distribution In Academy, 2012; 2(3): 28-38. [in Persian].
22. Kheirandysh, M, The feasibility model of implementing virtual education, Journal of Educational Strategies, 2011; 2(3): 137-142. [in Persian].