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Methods to Update ICT Skills of Professors in Islamic Azad University Qaemshahr Branch, Qaemshahr, Iran

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Abstract: By matching methods and successful well developed of development of ICT, can be obtained to bring advanced development, countries new ways of ICT, and updating skills ICT inorder of ICT teachers. Also, the best solutions and experiences from other countries can be used in the process of decision making, planning and administrative policies to suit local universities conditions. This article has been modeled through 12 countries, works with five regional groups and developing ICT solutions to improve the use of ICT in Iranian universities.Using content analysis and the giving questionary to the Instructors, we could extract, 65 solution branchs for updating professors ICT skills. Poll was done amoung the professors in Islamic Azad University Qaemshahr.Using statistical analysis such as the classified as follows: groups essential, necessary and unnecessary, high importance, medium importance and low importance. Also based on three criterias have been classified: The importance of professors view the importance of the experiences of countries and implemented at the University level. The aim of the study is to provide strategies and methods for updating the planners (updated) ICT knowledge and skills of university professors Qaemshahr.

Key words: Technology · Pedagogy · Change attitudes · Skills · ICT · Updating ICT

INTRODUCTION

Development of ICT skills in a community are provided, along with the development of ICT. So the fact is more visible at more advanced levels of education, especially in higher education colleges. To compete effectively in the emerging learning of environment that is necessary to improve continuously all countries to use ICT in universities [12]. The most important goals of universities, are flourish making of talents and creativity of students, so it is expected that students and professors should be aware are not unaware of the Islamic Azad University of rapid motion. Also be synchronized with the development of information and communication technologies in the Islamic Azad University. Therefore, all professors need to acquire the skills needed to master knowledge era. Forces until they can deliver skills and innovative the society in the near future. Provide effective methods for updating the ICT skills of professors is possible in the following three areas: technology (access, introduce, the use of ICT) and Pedagogy (teaching content and…) and it is merged into two educational activities, as well as field change their attitudes about ICT. The effective use of ICT requires the executive programs and policies. To be suitable for local situation of the university. Effective use of these results(application rate) and the applicable rates of effect, present the ICT skills are, professors. The main factor has the most effective in use, are effectiveness, introducing, education, attitude change and E-learning content, of prpfessors can lead to introduced and has more impact on the amount of faculies skills in ICT.

UNESCO also remembers his work as empowering providers and educators (facilitators in the integration of technologies-Pedagogy) has provided a new model for improving education with a expertized group. This model is composed of two layers: First layer is referred to skilled in two areas, skill and Pedagogy and second layer is referred to factors such as texture, lifelong learning and changes management. Between these two layers there is a reciprocal relationship. The theoretical framework on how to integrate ICT in professors training and herself, provides a total look for oriented planners and practitioners [4-6].

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One of the most developed ICT solutions for development programs in universities, is derivation from experiences of developed countries [8] [9]. Therefore should be prevented with the implementation of successful approaches and models of making mistakes with minimal resources allocated to the acquired, the maximum income [8] [10], so that simultaneously acquired information on various topics ICT, new methods have developed these technologies.The best solutions and experiences in other countries to support decision-making process [11]. In this Article we havent studied about the activities and experiences of 12 countries and five regional groups inorder to develop ICT in universities [7]. so we have extracted 65 solution, according to the study was conducted at universities in Iran and reports related to foreign organizations and based on local conditions Qaemshahr Islamic Azad University. The way things are categorized in six groups. Surveys are also professors. The main goal of this article is to present ways practitioners and planners in the Islamic Azad University Qaemshahr breanch. To take action in order to find a way to develop ICT and ICT skills updating instructures in university.

Research Methodology: In this article content analysis and survey methods has been used (according to subject, objectives and specific questions, a descriptive survey through questionnaires, or survey) to extract solutions in ICT development, Islamic Azad University Qaemshahr. Content analysis is a quantitative approach to measure the importance of an example to other examples of many other users [1]. Some part of this survey, including professors surveys, to localize and select appropriate solutions according to local conditions Qaemshahr Islamic Azad University Qaemshahr branch. Theoretical used in the completion of the library resources and Internet search including, books, articles and case studies.

Purpose Society: The purpose of this paper is as follows: All full-time professors and part-time faculty men and women (315 cases) and the professors Altdrys men and women (300 cases) in the University Qaemshahr.

Statistical Society: Population is a collection of individuals or objects that at least have one common trait. Statistical analysis sampling in this article are: All professors(both males and females) full-time and part-time in faculties in Islamic Azad University, the four colleges (Humanities, Engineering, Agricultural Engineering and Science) in 2011. Numbers based on information obtained from faculty members in Islamic Azad University Qaemshahr with 315 people. The faculty members education:

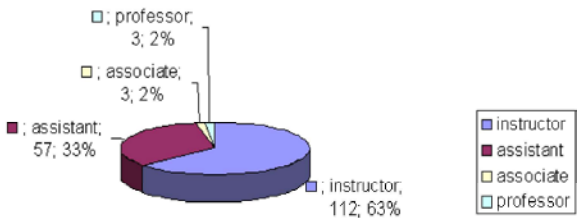

Fig. 1: Education level of sampling

Sampling: In this article sample is defined based on the table and Morgan Krjsy approximately 175 people. The number of samples used randomly from four colleges in university.

Validity and Reliable Measurement Tool: The apparent validity of measuring instruments is used, To measure the corrective comments professionals and university professors (content validity). Questionnaires were distributed among 20 professors and were collected about the amount of the proposed framework agreement with the components in the form of five numbers, quality option. The questionnaires have been identified structural problems and have been created the apparent validity.Questionnaire reliability measure was calculated, using Cronbach's alpha coefficients of the software SPSS. The questionnaire consisted of two parts: The importance of work and the way they run, or not run at the university. Alpha coefficients for these two questions about the above order are: 0.87 and 0.92. These numbers demonstrate the inner harmony between high quality and credibility questions of questioner.

The Methods of Data Collection: Information and data from the questionnaire were used. Six methods have been established in connection with road works. The six methods were introduced as special questions, were provided to subjects (full-time and part time faculty members).

Questions are: Service training methods (question number 12) of a 12 question questionnaire methods to update the content of E-learning (question number 7) from 13 to 19 questionnaires, methods familiar with ICT (the number Question 9) from question number 20 to 28 questionnaires, methods of using ICT (question number 13) from question number 29 to 41 question questionnaire,

Table 1: Size statistical subjects (full-time and part-time faculty professors) of all colleges

			Full professor		Professor		Professor		Instructor	
Academic Department			man	woman	man	woman	man	woman	man	woman
1	Science	63	2	-	3	-	22	5	28	3
2	Technical	59	-	-	1	-	12	1	42	3
3	Agriculture	72	1	-	-	-	27	3	30	11
4	humanities	121	-	-	-	-	25	2	71	23
5	sum	315	3	-	4	-	86	11	171	40

Total Full-time faculty and 315 part-time

Table 2: Volume of samples (full-time and part-time faculties professors Islamic Azad University Qaemshahr)

			Full professor		Professor		Professor		Instructor	
Academic Department			man	woman	man	woman	man	woman	man	woman
1	science	63	2	-	3	-	8	5	13	3
2	technical	59	-	-	1	-	12	1	15	3
3	agriculture	72	1	-	-	-	14	3	13	11
4	humanities	121	-	-	-	-	11	2	39	15
5	sum	315	3	-	4	-	45	11	80	32

Total Full-time faculty and 315 part-time

methods of access to ICT (question number 17) from question number 42 to 57 questionnaires, lectures attitudes Tyyr methods (Question number 9) from 59 to 67 questionnaires. Also check the run rate of 65 solution (according to research conducted at universities in Iran and according to conditions within the Islamic Azad University Qaemshahr) a lot of options have been used, medium and low.

Steps to Determine Ways: Appropriate solutions for ICT development in Islamic Azad University Qaemshahr, two stages have been identified: First stage: extraction solutions for ICT development in the country's universities and existing road conditions in terms of Islamic Azad University Qaemshahr (Content Analysis). At this stage was evaluated experiences and solutions for various countries in order to develop ICT in their universities. Since that can not be evaluated in all countries. For this reson it has been used the following criteria to select countries:

- Ranking of countries by ICT International Telecommunication Union model, which has classified them in four categories, excellent access, high, medium and low [2] Since Iran in this classification is located in the middle class, countries classified as excellent, moderate and thats why class high is chosen [15].
- Economic conditions based on gross national income: each category of classified World Telecommunication Union, is Selected the country closer Gross national income to Iran [7].
- Geographical situation: is selected from every continent at least one country [7].
- The availability of reliable and updated information states [7].

According to the above criteria to 12 countries modeled their chosen activities were studied. These countries include: Belarus, Egypt, Australia, Trinidad, Tobago, Jordan, Uzbekistan, Turkey, Bulgaria, Indonesia, Ireland, Armenia and England. In addition to the activities of these countries of Southeast Asian Nations Association, CIS, Latin America, Caribbean and Europe EU countries (two reports) have been studied. Modeled with these countries and regional groups 279 solution run by them have been used for the development of ICT in universities. Using content analysis, at least the way things are run by the two countries (the way many things have to be at least 2) have been selected as the solutions proposed for the survey of professors. Frequency of at least two intended for the solutions of choice in at least two countries with different conditions have been implemented and have been tested (some small number, 23 is extracted) [7].

Step Two: Survey of university professors Qaemshahr branch: In this phase solutions selected from the first phase and also extracted solutions based on research conducted at universities in Iran and reports related to international organizations have been a faculty survey, way up work according to their domestic conditions and priorities of the university are very important to be selected (65 solution). In this article, the attitude of the respondents (lectures) regarding the importance of developing ICT solutions in Iranian universities in the form of five questions from the very high quality option were very low. Also run to determine the amount of solution in the form of questions asked was a nominal scale, so many options, medium and low levels indicate performance were the way to work. It should be mentioned that another option called the questionnaire the way things have been added to your professors offer solutions that are not considered likely to provide.

The inference is used to describe the quantitative data from the Likert scale. For specific questions on a questionnaire to 65 are dedicated 1,2,3,4,5 scores to each option (respectively very low, low, medium, high, very high). Total scores for each of the subjects were checked.

Any how to run the way things work the way the number 65 brought the scores assigned to the options high, medium and low, the desired solution is evaluated. Appropriate solutions for ICT Development at the University of the country (based on local conditions Qaemshahr Unit) identified two stages are presented:

Data Analysis: After gathering information (Through the questionnaire), using the one-sided T-test to accept the way things are important in the development of ICT in the University Qaemshahr unit. Also to determine the importance of giving solution to ensure the work presented so far has not been implemented at the University, how to implement solutions in the choice of university professors have been asked. Performed to determine the percentage, or non-performance of the test works this way than (Nonparametric) which is used.

By using scree, methods and other statistical methods, the way things based on the experiences of countries and the importance of Iran's universities are classified. The stringent test run, the average has been placed four times.This test was conducted with the five percents significance level ($\alpha = 0.05$) and with 174 degrees of freedom. shown as follows:

Suppose zero (H_0): the mean response is greater than, or equal to 4. H_0: $\mu >= 4$

Contrast is (H1): Average response is smaller than 4. H_1: $\mu <4$.

In this test, the zero indicates that the job is run is very important. T test results for each of the tasks in Table 5. Also, The six methods of updating the skills of teachers shown in Table 3. Based on the frequency of column values in Table 3 several of ways to access ICT

Table 3: Frequency of six methods to date ICT skills of professors

Rows	Academic Departeman	Method
1	Science	Methods of access to ICT
2	Technical	Ways to change attitudes towards ICT
3	Agriculture	Introduction to methods of ICT
4	Humanities	Service training methods
5	Sum	Methods to update the content of E-learning
6	Total	Methods using ICT

Table 4: extracted solutions, the way many things and statistical test results

				Average class=4				
				----------Mean difference ----------				
Row	Method	Mean	TCalculated	DF	Sig	(mean and mean class attitude)	Row	
1	Ways to change attitudes towards ICT	3/753	7.868-	174	3.66	0.247-	1	95%
2	Methods using ICT	3/341	17.006-	174	7.705	0.658-	2	
3	Methods of dating to ICT	17.00-	7.325-	174	8.55	0.250-	3	
4	Methods to update the content of E-learning	3/680	11.418-	174	6.81	0.320-	4	
5	Methods of access to ICT	3/780	7.177-	174	1.97	0.219-	5	
6	Service training methods	3/671	-12.017	174	1.312	-0.328	6	

Table 5: Extracted image, the way many things in the country and statistical test results

Solution Codes	Solution	Freequency	Results valeues from test or non test solution in university: Obtain T value	value p-value Or sig	value H_0	Results valeues from test or non test solution in university: Number of samples	value p-value Or sig	value H_0
Solution 1 : in-service education								
Os1	Continuous in-service training	22	5.681-	5.53	Accept	0.45	0.22	Accept
Os2	In-service training time	19	6.402-	1.37	Accept	0.34	3.89	Accept
Os3	In-service training to person	17	6.678-	3.13	Accept	0.47	0.54	Accept
Os4	In-service training for distance	34	2.825-	0	Fail	0.62	0	Fail
Os5	In-service training using new methods and active Teaching using ICT	20	4.436-	1.62	Accept	0.47	0.44	Accept
Os6	Being practical in-service training	21	5.265-	4.1	Accept	0.46	0.36	Accept
Os7	Abilities, expertise and skills taught in-service teacher training	17	4.849-	2.73	Accept	0.47	0.54	Accept
Os8	Service training as a virtual (remote)	27	3.854-	0	Fail	0.62	0	Fail
Os9	Time for in-service classes	15	6.773-	1.89	Accept	0.47	0.44	Accept
Os10	Suitable location to hold classes service	18	5.586-	8.78	Accept	0.47	0.54	Accept
Os11	Facilities for in-service classes	1	3.245-	0	Fail	0.47	0.65	Accept
Os12	Training in ICT for Teachers	26	1.620-	0.1	Accept	0.47	0.44	Accept
Solution 2 : Update the electronic content								
Os13	Quarterly update and specialized journals and E-learning	11	-8.175	5.91	Accept	0.62	0	Fail
Os14	Update software training and administrative and research (such as day OFFICE 2003 to 2007 and 2010 and the successive versions Administrative and Financial Software	9	-8.448	1.13	Accept	0.47	0.44	Accept
Os15	Updating the ICT tools and facilities	13	-6.976	6.1	Accept	0.46	0	Fail
Os16	Update E-books	15	-7.077	3.47	Accept	0.47	0	Fail
Os17	Increased investment in new hardware, software, access Networking and educational content	14	-5.093	9.1	Accept	0.26	2.63	Accept
Os18	Having educational website and blog	13	-4.529	1.09	Accept	0.07	1.26	Accept
Os19	Development and dissemination of electronic content updated	7	-9.918	1.16	Accept	0.61	0	Fail
Solution 3 : Introduction to ICT								
Os20	Familiarity with ICT tools and facilities	53	0.599	0.55	Accept	0.22	2.14	Accept
Os21	Introduction to Windows, WORD, PowerPoint and Excel	10	-18.16	5.04	Accept	0.15	1.26	Accept
Os22	Introduction to Search Engine	45	0.106	0.91	Accept	0.18	1.26	Accept
Os23	Introduction to methods of search engines	42	1.323	0.18	Accept	0.07	1.26	Accept
Os24	Introduction to E-book	28	4.559	9.63	Accept	0	4.17	Accept
Os25	Introduction to online groups or online (Web site that Digital libraries are)	52	0.298	0.76	Accept	0	4.17	Accept
Os26	Introduction to email (email)	45	-1.19	0.23	Accept	0.11	1.26	Accept
Os27	Familiarity with attachments (Attachment) for updating Ict skills teachers	25	-4.913	2.06	Accept	0.11	1.26	Accept
Os28	Introduction to chat	34	-2.825	0	Fail	0	4.17	Accept
Solution 4 : use of ICT								
Os29	Used for typing Farsi and Latin word	54	0.593	0.55	Accept	0.09	1.26	Accept
Os30	Use the word to deliver training content and curriculum	46	-26.93	5.878	Accept	0.09	1.26	Accept
Os31	Using PowerPoint in providing educational content and curriculum	25	-13.194	5.381	Accept	0.12	1.26	Accept
Os32	Using Excel for data processing	7	-9.095	2.11	Accept	0.12	1.26	Accept
Os33	Use of computers as educational assistance and tuition	15	-12.651	1.971	Accept	0.12	1.26	Accept
Os34	Using the computer in question and doing homework lesson design	3	-10.447	3.87	Accept	0.18	1.26	Accept
Os35	Using computers for writing and typing Farsi and Latin	58	0.971	0.33	Accept	0.15	1.26	Accept
Os36	For information on using computers and scientific seminars and news conferences	59	1.271	0.2	Accept	0.05	1.26	Accept
Os37	Using computer chat	34	-2.825	0.005	Fail	0.63	0	Fail
Os38	Use of computers in order to get pay stubs updating skills ict teachers	30	-3.72	0	Fail	0.62	0	Fail
Os39	Using computers for email (mail)	10	-18.921	4.356	Accept	0.31	9.96	Accept
Os40	Using computer accessories (printers, scanners, CD, CD burner, modem, headphone and ....)	6	-21.34	1.873	Accept	0.19	1.26	Accept
Os41	Attract skilled professionals in the ICT sector to day administration, education, research	73	5.354	2.69	Accept	0.47	0.54	Accept

Table 5: Extracted image, the way many things in the country and statistical test results

Solution Codes	Solution	Freequency	Results valeues from test or non test solution in university: Obtain T value	value p-value Or sig	value H_0	Results valeues from test or non test solution in university: Number of samples	value p-value Or sig	value H_0
	Solution 5 : Access to ICT							
Os42	Information with mobile phone connected to the Internet	34	-2.825	0	Fail	0.62	0	
Os43	Set up office automation, education, research	9	-8.672	2.9	Accept	0.48	0.65	
Os44	Communicate with teachers via email	13	-7.927	2.59	Accept	0.62	0	
Os45	Communicate with professors via chat	34	-2.825	0	Fail	0.62	0	Fail
Os46	University broadband connection (Adsl, Wireless, Satellite)	90	5.851	2.37	Accept	0.07	1.26	Accept
Os47	Insert the card provides the Internet (accounts)	83	7.594	1.82	Accept	0.3	1.92	Fail
Os48	Teachers associated websites and blogs and specialized staff	8	-13.17	6.312	Accept	0.07	1.265	Fail
Os49	All search engines	18	-13.466	8.865	Accept	0.07	1.265	Accept
Os50	With virtual environments	11	-8.284	3.06	Accept	0.22	1.51	Accept
Os51	Providing access to the computer and accessories	77	4.684	5.65	Accept	0.62	0	Accept
Os52	With digital library	62	1.652	0.1	Accept	0.62	0	Accept
Os53	With multimedia content	5	-13.393	1.437	Accept	0.62	0	Accept
Os54	Create a local network at the University (Intranet)	81	6.113	6.23	Accept	0.18	1.26	Fail
Os55	With educational content on the Internet in English	50	-1.225	0.22	Accept	0.62	0	Fail
Os56	With non-English content available on the Internet	46	-1.726	0.08	Accept	0.62	0	Fail
	Solution 6 : Change in attitude toward ICT							
Os57	Change in mindset and attitude of teachers	33	-0.93	0.35	Accept	0.13	1.26	
Os58	Changes in workplace culture dominated	29	-1.439	0.15	Accept	0.01	1.26	Accept
Os59	Teachers Salary Increase	24	-4.781	3.7	Accept	0	4.17	Accept
Os60	Providing incentives to faculty members who integrate ICT in their Daily procedures	30	-3.72	0	Fail	0.62	0	Fail
Os61	Providing financial incentives to encourage teachers to purchase computers	27	-3.854	0	Fail	0.62	0	Fail
Os62	Providing employment for the promotions field masters	34	-2.825	0	Fail	0.07	1.26	
Os63	Building trust and believe the ICT Teachers	36	-13.554	0.64	Accept	0	4.17	Accept
Os64	In creating the need to change the way teachers teach using ICT	5	-15.153	1.293	Accept	0.46	0.36	Accept
Os65	Create awareness and promote ICT knowledge in E-learning managers and decision makers	39	0.862-	0.38	Accept	0.12	1.26	Accept

indicators most and plenty of ways to update index, E-learning content minimum. Also, indicators of access to ICT has a high importance than other methods. Most E-learning content is low. Also, indicators of access to ICT is very important than other methods.

According to Table 4 column sig values is obtained greater than 0.05, So The six methods are required for the updating of ICT professors.H_0 is not rejected for six of the above. H_0 is also not rejected for the above six cases. The mean difference is very low for the six methods. Thus the mean response received by respondents is higher than 4 (high importance) for the six methods. The end result being the above six methods can be considered for professors ICT skills. In addition for determining the importance of giving solutions, to ensure that the present way of things since the country's universities have not been implemented, the amount of running or non-performance solutions for the question of choice is a professor in Islamic Azad University Qaemshahr. To determine the way things run in Islamic Azad University of Qaemshahr branch ratio test is used as follows: This test with significance level of five percents ($\alpha = 0.05$) and with 174 degrees of freedom have been conducted with the following assumptions. Zero hypothesis (H_0): Replied were smaller than, or equal to the average range ($P <= 2$), H_0: $P <= 0.5$. Contrast was (H_1): range was greater than the average range ($P> 2$), H_1: $P> 0.5$. This test indicates rejection of zero hypothesis which was the professors of strategy, have been implemented previously at universities in the country, or were running and the desired solution in have Islamic Azad University Qaemshahr branch were not implemented (weak). Performance results compared for each of the way things are shown on in Table 5.

DISCUSION AND CONLUSION

In this Article, using scree way, the way things are classified based on the importance of universities in the country experiences. Method of the scree Katel offered in 1996 were to determine the graphics Optimum number of factors that must be preserved [3]. Figure 2 Run Results Test shows scree.

As in Figure 2 is clear in a way of are classified in three groups:

- solutions with high importance (frequency higher than 60)
- solutions with moderate importance (frequency between 40 and 60)
- solutions with low importance (frequency of less than 40)

Also, based on the results of k-related test the rate of importance of solutions are rated as follows: Table (7-1).

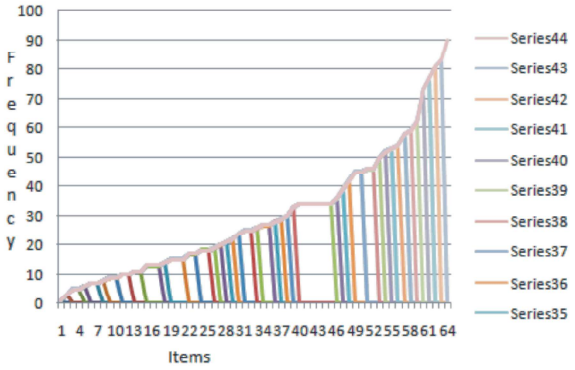

Fig. 2: Classification way thing scree test

In this article we will look more and more precisely, the six factors fold on updating skills, ICT professors, therefore, we used exploratory factor analysis method for further analysis. This approach has been to investigate and estimate the dimensions of the questionnaire by SPSS. The estimation method is performed as the main component (or principal analysis component).

Table 6: Classification way things based on experiences of countries

Category	Code Solution
High importance	os41,os46,os47,os51,os52,os54
Average importance	Os22,os23,os26,os30,os55,os56?os35? os36? os29? os20? os25
Low importance	Os1,os2,os3,os4,os5,os6,os7,os8,os9,os10,os11,os12,os13,os14,os15,os16,os17,os18,os19 os21,os27,os31,os32,os33,os34,os37,os38,os39,os40,os42,os43,os44,?os24 os45,os48,os49,os53,os57,os58,os59,os60,os61,os62,os63,os64,os65

Table (7-1). results of k-related test

Row	Item	Mean Rank
1	Methods of access to ICT	4.31
2	Ways to change attitudes towards ICT	4.03
3	Introduction to methods of ICT	4.01
4	Service training methods	3.39
5	Methods to update the content of E-learning	3.65
6	Methods using ICT	1.61

Table (7-2): Results of k-related test

Code	Mean	Rank	Code	Mean	Rank	Code	Mean	Rank	Code	Mean	Rank
OS47	4.37	1	OS1	3.93	17	OS4	3.78	33	OS44	3.63	49
OS46	4.33	2	OS58	3.93	18	OS5	3.78	34	OS50	3.62	50
OS54	4.32	3	OS23	3.92	19	OS17	3.78	35	OS32	3.61	51
OS41	4.28	4	OS55	3.92	20	OS24	3.75	36	OS43	3.61	52
OS51	4.28	5	OS56	3.89	21	OS59	3.75	37	OS34	3.58	53
OS52	4.09	6	OS2	3.84	22	OS27	3.74	38	OS19	3.57	54
OS36	4.07	7	OS28	3.84	23	OS6	3.73	39	OS48	3.13	55
OS35	4.05	8	OS37	3.84	24	OS7	3.73	40	OS53	2.95	56
OS20	4.03	9	OS42	3.84	25	OS8	3.7	41	OS49	2.83	57
OS29	4.03	10	OS45	3.84	26	OS9	3.68	42	OS33	2.81	58
OS22	4.01	11	OS62	3.84	27	OS10	3.68	43	OS64	2.75	59
OS25	4.01	12	OS18	3.81	28	OS11	3.68	44	OS16	2.7	60
OS63	3.98	13	OS3	3.79	29	OS12	3.68	45	OS31	2.64	61
OS57	3.95	14	OS38	3.79	30	OS13	3.67	46	OS21	2.48	62
OS65	3.95	15	OS60	3.79	31	OS14	3.66	47	OS40	2.36	63
OS26	3.94	16	OS61	3.79	32	OS15	3.63	48	OS39	2.31	64
Code	Mean	Rank									
OS30	2.01	65									

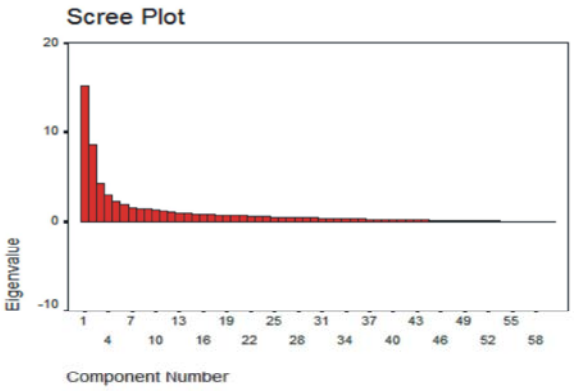

Fig. 3: Classification of invoices using the Scree Plot

The root is considered a special value(one). The root is used in special or particular values of the variance and is a criterion for estimating the principal components analysis.

Figure 3. Classification of invoices using the Scree Plot.

The above chart factors are categorized in three groups as follows:

With the above Factors:

- First Factor: 25.36 %
- Second Factor: 14.27 %
- Third Factor: 7.28 %

Factors with low or moderate impact include:

- Forth Factor: 4.89 %
- Fifth Factor: 3.69 %
- Sixth Factor: 3.14 %

The first 25%, the first and second factor of 39.64 % and total operating first, Second and third 46.93 %, 58.66% of the total can be the sixth factor which was justified. The eigen values ??obtained in the statistical analysis, factors first, second and the third is the most effect on changes. It can be said, three factors are the most important factors in the first division of Updating information and communication technology skills, of professors which are shown in figure 1.

Solutions with the Medium (the professors) shows that those can be implemented in connection with non-Latin and Latin-language content on the Internet. These solutions are not important from the perspective of experts and professors. The country has experienced moderate importance [7]. So not a high priority for implementation.

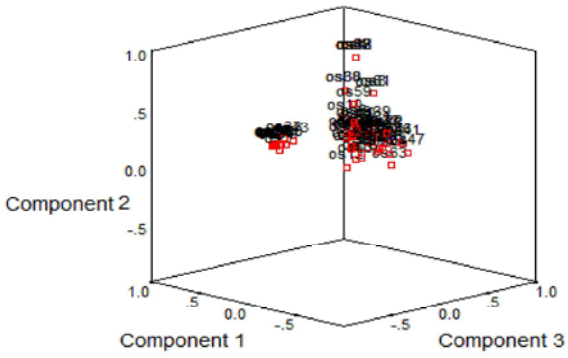

Fig. 4: Graphical optimization factors

But it can be implemented in a future case. The study shows that low-trivial solutions: solutions Using Computer Chatting, getting pay stubs, information, mobile connected to the Internet, communicate with professors via email, Chat and links to multimedia content is lower than the experiences of countries and universities in Iran. The professors and experts people are not important [7] and does not have any priority for implementation. From the perspective professors and experts are important: Providing access to computers and computer peripherals and Internet for professors, the university established an internal network (Interanet) connection to the Internet relationship with the faculty websites, weblogs, College, University relations digital library to provide information and links to educational content [7]. It is run by the University and the University Qaemshahr previously. Given the high importance it is necessary from the perspective of professors and experts.Their performances are evaluated. It will performed if necessary. In evaluating solutions to those priorities that are highly important or average experience of countries and universities in Iran. University of broadband connection and to attract skilled professionals, Internet accounts to provide professors, equipment and facilities with ICT, Websites with a view of the digital library is very important professors and has performed in universities in Iran [7] and this is very important about the experiences of countries [7]. It also means updating ICT, electronic books, specialized magazines, educational, and importance is low in experiences of countries and Iran [7]. In this Article, the professors of these solutions are not implemented, Or weak. This solution is recommended for Qaemshahr University. Also, the development and dissemination of electronic content are updated, provide incentives to professors who are integrating ICT in different ways regularly teaching. Any changes or modification by the managers and leaders of academic culture and

Table 8: The proposed solutions

Row	Solution Code	Title
1	Os19 ‘os60 ‘os61 ‘os63	Solutions required to run
2	‘os65 ‘os57 ‘ os58 ‘ os59 ‘ os50 ‘ os49 ‘ os29‘ os30 ‘ os31 ‘ os33 ‘ os35 ‘ os36 ‘ os26 ‘ os27 ‘ os23 ‘ os17 ‘ os18 ‘ os1‘ os9 ‘ os8 ‘ os7 ‘ os6 ‘ os5 ‘ os4‘ os2 ‘ os3 ‘ os50 ‘ os10 ‘ os12	Solutions and the need for unnecessary
3	os41‘ os47 ‘ os20‘ os25‘ os15 ‘ os16‘	Solutions for Islamic Azad University Qaemshahr
4	Os51‘ os46‘ os54‘ os52	Solutions that necessary to have this
5	Os55‘ os56‘ os37‘ os38‘ os44‘ os45	Solutions that are necessary for the performance in terms of the future can be implemented)
6	Os11‘ os14‘ os32‘ os34 ‘ os40‘ os43‘ Os48‘ os53‘ os64	Solutions that are removed

the It is necessary to achieve desired goals in the E-learning, It leads to create awareness and promote of ICT knowledge in management and decision making of E-learning, Possible. IT feels need, trust and believe which to be caused professors to change their teaching methods, until they merge it with the information and communication technology. The proposed solutions are shown on the table 8.

According to Table 3, 1-7 and Figure 3, three factors (solution): The methods of access to ICT, methods with ICT, methods change their attitude towards ICT, most of the higher rank. So have the greatest role in promoting changes in knowledge and professors ICT skills. These three factors as a component of effective and efficient methods for updating ICT skills of professors Qaemshahr are introduced. According to Table 8, the solutions required for updating ICT skills of professors in universities and publishing solutions electronic content updates, which provide incentives to professors in using ICT Integrated into daily work, providing financial incentives to encourage professors to buy a computer, build confidence and belief that ICT professors. According to Table 8, for a single solution for updating Qaemshahr to master the tools and resources to make ICT, to update the books electronic means and facilities with ICT, with online groups or online (websites that have a digital library) and to attract skilled professionals day in the ICT sector, administrative, research and education, Having an Internet account. The way things were a lot less than 10, were excluded.

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