

## **An Investigation into Obstacles on the way of Applying Communications and Information Technologies at Alborz Province Education Schools**

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**Abstract:** The current research aimed to investigate obstacles on the way of applying communications and information technologies at Alborz Province education schools in the educational year of 2013-2014. The research has been conducted in a survey form and the statistical population consisted of all teachers at three education levels of Alborz Province. The sample is comprised of 217 teachers who were selected through proportionate cluster sampling. Tool for gathering data is a researcher made questionnaire whose validity was confirmed by experts and its reliability is 92% by using cronbach's alpha. For a statistical analysis,  $\chi^2$ -test, K-Schwer and Friedman tests were applied. Research results indicated that obstacles are; managerial obstacles; organizational obstacles; individual obstacles; technical-infrastructure obstacles; economic obstacles; ineffectiveness obstacles; traditional teaching obstacles; pedagogic obstacles; cultural and educational obstacles. These obstacles hinder the application of communications and information technologies at Alborz Province education schools in the Alborz Province.

**Key words:** Communications and information technologies, education, education by means of communications, information technologies, Alborz

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### **INTRODUCTION**

In the current era, rapid growth and expansion of communications and information technologies has affected various aspects of life including cultural, social and economic aspects. Of outcomes of the entry of communications and information technologies in life, one can refer to the emergence of concepts and terms such as information society, age of information and knowledge based economy. It is necessary for the education system to be prepared for alignment with other social entities within the era of communications and information technologies in order for developing man who needs to play roles in this age. On the other hand, it has to be admitted that communications and information technologies have resulted in transformations in education system. Communication and information revolution has rapidly subjected economy, culture, world and politics to transformations and thereby, converts the world into a global village. By using this technology means and facilities, the events that take place in any angle of the world will be communicated across the world in the shortest time possible (Fathi, 2008). It will be made possible to rapidly establish communications and quickly exchange information more than ever before by possessing various and advanced information and communication technologies. The ability of the country's

educational system in raising and nurturing some effective human force is among effective factors in the advancement of that country. Using communications and information technologies for learning knowledge and skills has become a necessity for the area of education and research. Headway in the communications and information technologies in the field of education has created a new form of education, called education through the internet or simultaneous education whose aim is access by various learners in all corners across the world. Communications and information technologies in the current world have led to fundamental changes in the area of education and learning. Firstly, providing huge volume of information transforms the learner's perception of the world; secondly, widespread distribution of and easy access to information has changed the relationship between professors and learners. Thirdly, flexibility as well as dimension of time and place has transformed the human's educational life.

New learning and teaching approaches stand against traditional approaches; role change and learners are discussed and it is maintained that generally, it is indispensable to use communications and information Technologies for achieving high quality learning goals for all. In the modern era, there are new goals ahead of the education system; new learning and teaching approaches stand against traditional approaches; role change and

learners are discussed and it is maintained that generally, it is indispensable to use communications and information technologies for achieving high quality learning goals for all (Anderson and Glenn, 2003). Teachers are the main practitioners of successful entry and interaction of technologies within the education system. As each teacher has his/her own method in using the blackboard or any other tool while teaching, the way technologies are used in education and the way they are mixed in teaching depend on teacher's experience and attitudes (Bates, 2001, Hashim, 2003).

Communications and information technologies are the main cause of reduction of distance and time in all functions such that many areas pertaining to this reduction will lead to production and supply of services. Communications and information technologies in a very short time have become one of the major pillars of modern societies (Pelgrum, 2001). These technologies have enabled people in accessing, processing, storing, retrieving and disseminating information in an effective way and help developing countries to compete in the global knowledge based economy and it can be defined as all forms of technology of manufacturing, storage, exchange and application of information in various forms and other forms, not yet been created (Zainal, 2008). Issues and challenges of the contemporary education, compared to the previous two decades have seen a rapid acceleration, a drop in the quality of education, globalization of educational and pedagogic goals, concern pertaining to maintain identity, rise of costs, widespread competition and increase of gaps are among such challenges. Under such an environment, the education decision making sees itself being faced with past decades issues, it is supposed to meet future issues, besides a mass of past and present issues and challenges and thus, prepare itself to get down to them however, this cannot be made possible by current decision mechanisms (Moeeni *et al.*, 2010).

Communications and information technologies teach us how to change the organization and how to create innovation in relation to the environment and competition with other organizations so that we can have intelligent actions in coping with modern organizations. On the other hand, it has to be admitted that communications and information technologies have resulted in transformations in education system. New learning and teaching approaches stand against traditional approaches; role change and learners are discussed and it is maintained that generally, it is indispensable to use communications and information technologies for achieving high quality learning goals for all (Anderson and Glenn, 2003). Using communications and information technologies in traditional classes and also increasing access to new learning is one of the changes which is being calmly

instituted in the thinking horizon and is being embedded in education institutions. By considering above observations and also considering this issue that the application of communications and information technologies in education seems a necessity for developing and nurturing an innovative generation and global citizen other than a fashion so that skills in the new era are transferred to students in this way, this question appears that despite perceiving these necessities, what factors will hinder appropriately using communications and information technologies among Alborz students? The most important of which given many researched done in this regard, could involve ineffective teachers, lack of appropriate equipment at schools, traditional teaching and fear of some teachers towards using technologies in the class, etc.

With the advent of new technologies, teaching profession has changed from emphasis on teacher centeredness and education based on lecture to learner centeredness and interactive learning settings.

Technology progress has provided new paradigms for education institutes. Multimedia means have strengthened distance learning approaches, leading to clear duality between dimension of traditional learning and new education (Aghobi *et al.*, 2008). One of the most important issues that the Iranian education is facing is the fact that the traditional system is unaccountable to the real needs of the society in the field of science and knowledge production effectively. In this regard with the inefficacy of the current system, the issue of technology being raised as a new method within the educational system is faced with problems (Maghami, 2011). Researchers have considered some issues as obstacles and problems in expansion and application of communications and information technologies in the world; encompassing educational policies, planning, infrastructure language, capacity building financial affairs of organizational challenges and pedagogic challenges and problems. In another research, obstacles of communications and information technologies have been classed into six categories; technology, pedagogic (education), economic, administrative and legal, strategic and sociocultural (Mohammadi, 2008). Facing with such expansion and rapid growth of science and knowledge and constant change of needs of societies have coerced the education system to make use of rational and scientific methods against modern ways of communications and information technologies so that various factors affecting learning and learning environment are identified. This research seeks to identify obstacles to application of communications and information technologies and offer appropriate and necessary guidelines for removing such obstacles.

## MATERIALS AND METHODS

The current research methodology is quantitative and falls under the applied category in terms of goal from the view of controlling for variables, it is among non-experimental researches which are conducted by survey form.

**Statistical population:** The statistical population of this research includes all three level (primary, junior school and high school) teachers of the Alborz's education department. The sample is comprised of 217 teachers who were selected through proportionate cluster sampling.

**Tools for gathering information:** In the current research in order to measure variables, necessary information and data were collected and hypotheses were examined and given the educational setting of schools and using literature review studies, questionnaire was used and its items were formulated based on theoretical and conceptual definitions. This method was determined appropriate with the situation and conditions of statistical research population and it was assumed that examination of all intended variables was made possible. Thus, method in fact, allows us to obtain uniform information about statistical population and to properly compare and observe variables. The questionnaire formulated in this research includes a total of 58 questions, four of which relate to professional and scientific characteristics of respondents. The 58 questions include 9 criteria and each of the criteria, respectively include ineffectiveness (from question 1-5), technical-infrastructure (from question 6-10), economic (from question 11-15), cultural and educational (from question 16-19), traditional teaching (from question 20-24), pedagogic (planning and resources management, evaluation, flexibility, learner- orientedness) (from question 25-43), managerial (from question 44-48), organizational (from question 49-53) and individual factors (from question-54-58) where education-cultural and flexibility factors include 4 questions each and other factors contain 5 questions. Regulating questionnaire's questions is in such a way that it starts by answering about professional and scientific characteristics and liker scale has been used for scoring the answers.

**Validity and reliability of the research tool:** During various sessions to obtain acceptable validity such criteria as interviewing others, experts of education, education information technology section, teachers of three educational levels of Alborz Province and ideas of PNU professors were used for a more accurate examination of the questionnaire's validity and in order

for making sure of its content. Hence, whether the questions raised could measure the subject or not were considered as the basis so that the validity of the content of questions and ideas recommended about variables are exercised. In the end, most arbiters determined the measurement tool for this work and considered it as credible. Also, the construct validity and correlation method was estimated to be 76-80%.

**Reliability:** To determine reliability, the researcher used cronbach's alpha for determination of reliability. This method is used for estimating the internal constancy of the measurement tool, particularly the questionnaire used. After formulations and preparing indices and designing the initial form of the questionnaire, a preparatory study was done. The goal of this study was to determine the reliability of the research's questionnaire. This preparatory study was administered on a sample of 30 teachers of three education levels of the province of Alborz and the scores relating to each of the questionnaire having been obtained, cronbach's alpha was obtained 0/92.

## RESULTS AND DISCUSSION

Analysis of findings of this research was done by considering the hypotheses raised and research goals. Thus in order to analyze research hypotheses and given measurement and kind of variables, relevant tests were applied. After collecting questionnaires, data were analyzed in two descriptive and inferential parts. In the descriptive section statistical analyses of frequency, percentage maximum, minimum, average and standard deviation were used and in the inferential section, K schwerand friedman tests and average differences and rations were applied (Table 1).

**First question:** From the view of teachers at three educational levels are ineffective factors among obstacles to application of information and communications technologies in the education system of Alborz Province?

Given the above Table 2 as much as 43.8% of the respondents evaluated ineffectiveness obstacles as hindering application of information and communication technologies at schools of Alborz Province (Table 3). Research's hypothesis in the test under study is significant at the  $p < 0/005$  level, suggesting there is a significant difference between ratio of observations in levels under study (weak, medium and high). Looking into Table 2, it is seen that option high has been significantly and considerably used more than other options. To say it

**Table 1: Frequency and percentage of respondents in accordance with the Likert scale with respect to ineffectiveness obstacles**

| Questions  | Very low |           | Low     |           | To some extent |           | High    |           | Very high |           |
|--|----------|-----------|---------|-----------|----------------|-----------|---------|-----------|-----------|-----------|
|  | Percent  | Frequency | Percent | Frequency | Percent        | Frequency | Percent | Frequency | Percent   | Frequency |
| Loss of confidence and anxiety among teachers in using information and communications technologies                               | 18.4     | 40        | 16.1    | 35        | 20.3           | 44        | 22.60   | 49        | 22.6      | 49        |
| Lack of sufficient education for teachers in order to effectively use information and communications technologies                | 7.8      | 17        | 12.9    | 28        | 13.8           | 33        | 30.00   | 65        | 35.5      | 77        |
| Lack of teacher's access to information technologies personally  | 8.3      | 18        | 12.4    | 27        | 16.6           | 36        | 28.10   | 61        | 34.6      | 75        |
| Loss of access to sources and not having insight and awareness to privileges of using information and communication technologies | 6.9      | 15        | 12.4    | 27        | 34.4           | 53        | 32.35   | 70        | 24.0      | 52        |
| Lack of sufficient knowledge for teachers in order to effectively use information and communications technologies                | 7.8      | 17        | 16.6    | 36        | 18.9           | 41        | 32.70   | 71        | 24.0      | 52        |

**Table 2: Evaluation degree of respondents of ineffectiveness obstacles**

| Evaluation level | Frequency | Percent |
|------------------|-----------|---------|
| Weak             | 59        | 27.2    |
| Medium           | 63        | 29.0    |
| High             | 95        | 43.8    |
| Total            | 217       | 100.0   |

**Table 3:  $\chi^2$ -test of table 2**

| Options            | Impacts of ineffectiveness factors on obstacles to application of information options and communication technologies |
|--------------------|--|
| $\chi^2$ statistic | 10/765   |
| Freedom degree     | 2  |
| Significance       | 0/005  |

**Table 4: Frequency and percentage of respondents according to the Likert scale in regard to technical and infrastructure obstacles questions**

| Questions   | Very low |           | Low     |           | To some extent |           | High    |           | Very high |           |
|---|----------|-----------|---------|-----------|----------------|-----------|---------|-----------|-----------|-----------|
|   | Percent  | Frequency | Percent | Frequency | Percent        | Frequency | Percent | Frequency | Percent   | Frequency |
| Low internet speed  | 6.5      | 14        | 11.1    | 24        | 25.8           | 56        | 25.5    | 56        | 30.9      | 67        |
| Lack of educational sites at school for using information and communications technology | 6.5      | 14        | 8.8     | 19        | 20.3           | 44        | 23.5    | 51        | 41.0      | 89        |
| Limited educational software  | 6.5      | 14        | 10.6    | 23        | 18.9           | 41        | 30.4    | 66        | 33.6      | 73        |
| Limited access to computer and its accessories printer and scanner, etc.                | 6.9      | 15        | 11.1    | 24        | 18.0           | 39        | 33.6    | 73        | 30.4      | 66        |
| Lack of a Persian operating windows and non-support of Persian handwriting              | 8.8      | 19        | 11.5    | 25        | 27.2           | 59        | 31.3    | 68        | 21.2      | 46        |

**Table 5: Evaluation of respondents of technical and infrastructure obstacles**

| Evaluation level | Frequency | Percent |
|------------------|-----------|---------|
| Weak             | 49        | 22.6    |
| Medium           | 62        | 28.6    |
| High             | 106       | 48.8    |
| Total            | 217       | 100.0   |

**Table 6:  $\chi^2$ -test of table 5**

| Options            | Impacts of program and sources management factors on obstacles to application of information and communication technologies |
|--------------------|---|
| $\chi^2$ statistic | 24/673  |
| Freedom degree     | 2   |
| Significance       | 0/001   |

simply, the impacts of ineffectiveness factors on obstacles to application of information and communication technologies are evaluated at a high rate (Table 4).

**Second question:** From the view of three level teachers are technical infrastructure factors among obstacles to

application of information and communications technologies in the education system of Alborz Province? Given the above Table 5 as much as 48.8% of the respondents evaluated technical and infrastructure obstacles as hindering application of information and communication technologies at schools of Alborz Province (Table 6). Research's hypothesis in the test under study is significant at the  $p < 0/001$  level, suggesting there is a significant difference between ratio of observations in levels under study (weak, medium and high). Looking into Table 5, it is seen that option high has been significantly and considerably used more than other options. To say it simply, the impacts of technical and

Table 7: Frequency and percentage of respondents according to the Likert scale in regard to economic obstacles questions

| Questions  | Very low |           | Low     |           | To some extent |           | High    |           | Very high |           |
|--|----------|-----------|---------|-----------|----------------|-----------|---------|-----------|-----------|-----------|
|  | Percent  | Frequency | Percent | Frequency | Percent        | Frequency | Percent | Frequency | Percent   | Frequency |
| Higher costs of skill learning                                     | 8.8      | 19        | 10.6    | 23        | 20.3           | 44        | 36.4    | 79        | 24.0      | 52        |
| High costs of purchasing hardware and software                     | 5.5      | 12        | 10.1    | 22        | 20.7           | 45        | 25.8    | 56        | 37.8      | 82        |
| High costs of purchasing educational material                      | 5.1      | 11        | 9.7     | 21        | 25.3           | 55        | 34.1    | 74        | 25.8      | 56        |
| High costs of using the internet                                   | 4.1      | 9         | 12      | 26        | 24.9           | 54        | 29.5    | 64        | 29.5      | 64        |
| Costs relating to using phone lines for connecting to the internet | 9.2      | 20        | 7.8     | 17        | 27.2           | 59        | 29.5    | 64        | 26.3      | 57        |

Table 8: Evaluation of respondents of economic obstacles

| Evaluation level | Frequency | Percent |
|------------------|-----------|---------|
| Weak             | 46        | 21.1    |
| Medium           | 74        | 34.1    |
| High             | 97        | 44.7    |
| Total            | 217       | 100.0   |

Table 9:  $\chi^2$ -test of table 8

| Options            | Impacts of economic factors on obstacles to application of information and communication technologies |
|--------------------|---|
| $\chi^2$ statistic | 18/0.370  |
| Freedom degree     | 2.000   |
| Significance       | 0.001   |

Table 10: Frequency and percentage of respondents according to the Likert scale in regard to program and sources management

| Questions  | Very low |           | Low     |           | To some extent |           | High    |           | Very high |           |
|--|----------|-----------|---------|-----------|----------------|-----------|---------|-----------|-----------|-----------|
|  | Percent  | Frequency | Percent | Frequency | Percent        | Frequency | Percent | Frequency | Percent   | Frequency |
| Lack of reward for encouraging teachers on the part of management in order to use information and communication technologies                 | 13.4     | 29        | 14.7    | 32        | 13.8           | 30        | 30.4    | 66        | 27.6      | 60        |
| Low rate of coherent programs in the information and communication technologies  | 3.7      | 8         | 14.7    | 32        | 20.3           | 44        | 41.0    | 89        | 20.3      | 44        |
| Non-possibility of doing direct curricular and educational programs within the information and communication technologies                    | 6.0      | 13        | 9.7     | 21        | 21.2           | 46        | 38.7    | 84        | 24.4      | 53        |
| Inability to change the rubrics and sources by the teacher or the learner and difficulty in preparing information and communications sources | 4.1      | 9         | 10.1    | 22        | 27.6           | 60        | 37.3    | 81        | 920.7     | 45        |
| Low time of access by teachers to the system   | 5.1      | 11        | 11.1    | 24        | 19.4           | 42        | 35.5    | 77        | 29.0      | 63        |

Table 11: Evaluation of respondents of program and sources management obstacles

| Evaluation level | Frequency | Percent |
|------------------|-----------|---------|
| Weak             | 49        | 22.6    |
| Medium           | 68        | 31.3    |
| High             | 100       | 46.1    |
| Total            | 217       | 100.0   |

infrastructure factors on obstacles to application of information and communication technologies are evaluated at a high rate (Table 7).

**Third question:** From the view of teachers are economic factors among obstacles to application of information and communications technologies in the education system of Alborz Province?

Given the above Table 8 as much as 48.8% of the respondents evaluated economic factors as obstacles hindering application of information and communication technologies at schools of Alborz Province.

Research's hypothesis in the test under study is significant at the  $p < 0/001$  level, suggesting there is

a significant difference between ratio of observations in levels under study (weak, medium and high). Looking into Table 8, it is seen that option high has been significantly and considerably used more than other options. To say it simply, the impacts of economic factors on obstacles to application of information and communication technologies are evaluated at a high rate (Table 9).

**Fourth question:** From the view of teachers are program and sources management factors among obstacles to application of information and communications technologies in the education system of Alborz Province? (Table 10 and 11).

Given the above Table 11 as much as 46.1% of the respondents evaluated program and sources management factors as obstacles hindering application of information and communication technologies at schools of Alborz Province (Table 12). Research's hypothesis  $H_0$  in the test under study is significant at the  $p < 0/001$  level, suggesting there is a significant difference between ratio of

Table 12:  $\chi^2$ -test of table 11

| Options            | Impacts of program and sources management factors on obstacles to application of information and communication technologies |
|--------------------|---|
| $\chi^2$ statistic | 18.369  |
| Freedom degree     | 2.000   |
| Significance       | 0.001   |

observations in levels under study (weak, medium and high). Looking into Table 12, it is seen that option high has been significantly and considerably used more than other options. To say it simply, the impacts of program and sources management factors on obstacles to application of information and communication technologies are evaluated at a high rate.

## CONCLUSION

**Question one analysis:** From the view of teachers at three educational levels are ineffective factors among obstacles to application of information and communications technologies in the education system of Alborz Province? as seen in Table 3,  $\chi^2$  obtained with freedom degree of 2 and confidence level of 95% ( $\alpha = 0/5$ ), equaling 10/765 is greater than the value of existing  $\chi^2$  in the table equaling 5/99; hence in responding to the question, it can be stated that ineffective obstacles from the view of teachers of three levels are among the obstacles to application of information and communication technologies in the province of Alborz. These findings are consistent with previous searches by Farhangi (2010), Mahmoud (2008) and Zeinal (2008). One of the most important obstacles which is focused attention in the area of ineffectiveness is lack of access by teachers to information and communication technologies individually and lack of access to sources and having no possibility of access to benefits of using information and communication technologies. To use information and communication technologies, the most important conditions is considered to be the establishment of an educational system in the area of human force. Generally, skills which convert knowledge and information with effectiveness to services and innovative goods are in the current world indicative of economics based on knowledge and information. Since, knowledge and information have become common currency for obtaining productivity, welfare and competitiveness, countries too have assumed higher priority for expanding human investment. One of the component is launching information and communication technologies in education system and creating learning opportunities which remove obstacles to using information and communication technologies. According to researches by Bates (2001), it is shown that goals

related with IT as well as needs and priorities need to be identified and obstacles be removed and to train the human force in proportionate to educational goals and needs and thus to create some sufficient training. The goal of education is to foster establishment of a coherent, coordinated and encompassing system for providing educational and research services proportionate to the society's needs and talents and interest without time and place constraints.

**Question two analysis:** From the view of three level teachers are technical-infrastructure factors among obstacles to application of information and communications technologies in the education system of Alborz Province?

As seen in Table 6,  $\chi^2$  obtained with freedom degree of 2 and confidence level of 95% ( $\alpha = 0/5$ ), equaling 24/673 is greater than the value of existing  $\chi^2$  in the table equaling 5/99 hence in responding to the question, it can be stated that technical and infrastructure obstacles from the view of teachers of three levels are among the obstacles to application of information and communication technologies in the province of Alborz. These findings are consistent with Mahmoud (2008), Flam Mason (2003) and Peters (2003) thus today, communications and exchange is formed in a telecommunication ground. Low internet speed for connecting to the Internet is one of the undeniable requirements for telecommunications though in recent years, much efforts have been made in the country to expand telecommunication and create facilities and installations and hence many successes have been achieved, telecommunication capacity and equipment, existing right now cannot account for all needs pertaining to information and communication technologies, specifically in the field of education. One of the problems is insufficiency of telecommunication wideband which creates a huge load of traffic for lines. These factors cause problems in establishing communications. Access to the Internet networks requires formation of providers of the internet services. Interest service providers need to be connected to mother stations so that they can provide access to internet for people (Groff and Mouza, 2008). In our country, due to legal limitations and constraints which have been created due to some cultural and judicial issues, the number of internet service providers, compared to those requesting for such services is low and this issue has resulted in lowering of access to the internet for people. Currently, most offices, state organizations, educational institutions and universities and cultural centers utilize such services. In case the number of

internet service providers is low and access to the internet is difficult, one cannot plan for the expansion of information and communication technologies in the educational system. Therefore, it is necessary to deal with such issue and create necessary legal and technical grounds for expanding internet and providers of internet services across the country.

**Question 3 analysis:** From the view of teachers are economic factors among obstacles to application of information and communications technologies in the education system of Alborz Province?

As seen in Table 9,  $\chi^2$  obtained with freedom degree of 2 and confidence level of 95% ( $\alpha = 0/5$ ), equaling 18/037 is greater than the value of existing  $\chi^2$  in the table equaling 5/99 hence in responding to the question, it can be stated that economic obstacles, from the view of teachers of three levels are among the obstacles to application of information and communication technologies in the province of Alborz. These findings are consistent with researches by Fathian (2008), Atashak, Zare'ea, Malaki and Garma'ea Eugenia. Therefore, though economic factors are considered as major and basic obstacles to application of information and communications technologies, the most important of such factors are regarded as higher cost for skill learning and purchasing educational material as fundamental factors. A country enjoying lower economic development rate will be at a low rate in the field of growth rate and influence of modern technologies, i.e., there is a direct relationship between economic expansion and rate of influence of modern technologies and specifically, it can be stated that one of the major economic indices is the expansion rate of technology and development rate of technology and Particularly information and communications technologies (Mashayekhi, 2005). This case holds true for developing and underdeveloped countries. In regard to developed countries where economic growth rate is low due to the fact that there is a close relation and an economic interaction of factors together, hopes in attaining some modern information and communications technologies will be low. Thus, low rate of economic expansion of a country could be regarded as a major obstacle for attaining modern information and communications technologies, particular in the area of education. Annual per capita could also be raised as an index in the degree to which technologies required are accomplished. Income level of each person in any country tells this subject whether people of that society could obtain medium range of abilities for acquiring communication technologies (computers and internet, etc.) or not. The more subsistence level of people is low, the less the people of

that society will incline to using modern communication means because people with low income prefer to prepare their necessary stuff other than moving towards information and communications technologies. The number of PCs existing and growth rate of people access to hardware and software are among the major factors and obstacles to the expansion of information and communications technologies, specifically in the field of education. Lack of access to such facilities is another major block in expanding and developing this technology in education. The other issue relates to costs of using phone lines.

**Question four analysis:** From the view of teachers are pedagogic factors (program and sources management, assessment, flexibility learner-centeredness) among obstacles to application of information and communications technologies in the education system of Alborz Province?

As seen in Table 10,  $\chi^2$  obtained with freedom degree of 2 and confidence level of 95% ( $\alpha = 0/5$ ), equaling 18/369 is greater than the value of existing  $\chi^2$  in the table equaling 5/99 hence in responding to the question, it can be stated that pedagogic factors (program and sources management, assessment, flexibility learner-centeredness) obstacles from the view of teachers of three levels are among the obstacles to application of information and communication technologies in the province of Alborz. These findings are consistent with researches by Maghami (2011), Ahmadi (2005) and Rahmanpour (2009). To account for these findings, we attempt to explain each of the components separately. Pedagogical obstacles originate from new conditions of new target groups and new goals such that Fius has stated that educational settings separate students from the place of education by means of ICT and are considered as an obstacle to acquiring knowledge for students. He states that separating the students will lead to loss of a major normal risk for students. He regards risks pertaining to receiving personal criticism from one school from one student as the most important stimulus which will increase their partnership. Internet and lack of personal participation for him will lead to loss of meaning. He argues that individual values and beliefs are highly important for converting information and this meaning is approximately reacted with true commitment. To explain flexibility, it can be stated that in education classes, the issue of social participation and lack of social interaction between students and teachers will be intended by means of information and technologies. Students via ICT will have the ability to interact with friends and classmates when faced with social problems. Thus, students feel

deprived in education driven by ICT and in such courses they will have a feeling of indignation compared to traditional education. Interaction has a major role in the growth of learning community. Interaction allows for supporting the profession of instructors. Interaction also encourages teachers towards growth of knowledge and discovery of subjects within the scientific community. Interaction allows for a continued monitoring and upgrading contents and activities related with learning. It is also an instrument for supporting monitoring over rights and facilitating using texts by various groups of learners and instructors. Source management which is a unit of management for program in structure requires talks, where this will be done in the starts of any program. Learners require to determine their own needs and consider planning in organizations such that it can be stated learning setting along with coordination will constrain the what and how of doing and limit schedules being non-symmetrical. It can be argued that coordination system must avoid shortfalls of sources competition.

Learner-centeredness is an effective factor in obstacles to education by means of ICT. It can be stated that learner-centeredness causes learners to learn by themselves such that the very education setting will create a strong instrument for supporting and arranging discourse. This will allow learners to have feedback over their own current learning activities and future needs. This factor on one hand is effective in people self-organization such that if self-organization is not encouraged in people, learners will incline to superficiality. An education system particularly education department needs a place with which learners can discuss and increase their learning. Evaluation hinders creation of gaps between objectives and methodologies because if feedback is not continuously done, implementation methods of the education system will be asymmetrical with primary goals and the expected return will not be achieved (Mahmoud, 2008). If by the time of education, positive tendencies and inclinations increase, positive tendencies will be created among staffs of the organization but if education is done incompletely, it will affect professional and working trend of the people working in the organization; this will be in sharp contradiction with major goals of implementing education in the organization. ICT driven education, by using the internet needs creation of effective management in relation to education content. Content must be used again and there is a need to offer a transferable form. While offering theoretical and practical texts in ICT form, learners should not be limited to as fixed timing program. In addition to this, curricula based on adaptable manners

could be provided for students. Students can read relevant texts and fulfill lab practices is that more flexibility is formed.

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