The investigation of the information technology and communication in-service training course in the occupational skills of the experienced high-school teachers of Kermanshah City

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ABSTRACT

Current study is review the effect of courses of training within work with subject communication and information technology in jobs skills trained teachers of High school section in Kermanshah township with due attention to the importance of development of this connection .And this organization has been held courses of communication and information s training for teachers. In this study ,researcher asks questions about administration of this courts in mind And to answer to these questions performs this study .1.Did passing training course of communication and information technology lead to increased job s skill of teachers?

Did passing training course of communication and information technology lead to increased designing, performance and evaluation and studying skill of teachers? Used method in this research is sectional, measuremental and descriptive and samples are all of men and women teacher. Who teach in High school section in Kermanshah township and participate in these courses from 1381 to the end of 1385. This study was comply with 310 person and with multi stage, recompose and by chance method of sampling .For collect the information which was need in research , researcher has been used a quationer which was mode by herself with Likret method and on the base of teachers jobs skills and with attention to the cintent of communication n and information technology course. Measurement tool in this study is going to evaluate the designing, performance, evaluation and researching skill of teacher. Descriptive statistics in this study are (Frequency, Frequency percent, Average, mean , mode , deviation and variance) and the chi square test was used for questions of study .Finally Excel and spss software were used for analysis of data. Obtained of study indicated that* passing communication and information technology courses has been cause to increased jobs skills of teacher* Passing communication and information courses has increase designing skills of teacher. * Passing communication and information courses has increased performance skills of teacher. * Passing communication and information courses has increased evaluating skills of teacher*Passing communication and information courses has increased researchable skills of teacher.

INTRODUCTION

Today we can call the present era as the golden and precious period of the computers because the whole aspects of the life have been affected by these new technological affairs potentially. For the reason, in many countries the process of job with computer has been established as a fundamental issue; people without having the science of working with computer will be called illiterate people. The ability of computers is considered as an instrument for analyzing, searching, categorizing and transforming huge volume of the information potentially; in the other hand, easy availability to the informational services and the communication with other researchers have been made the suitability of the same instrument in the scientific environment recovering the literacy of the information in this pavement. Due to the feature of information communication technology (ICT) and the high potential of software programs, the possibility of the training process as interactively, individual training, expensive simulation experiments will be easily provided by the use of these issues; along with the increase of the students' educational affairs, this system can play a key role in the educational issues potentially. Hence, today the computer can be considered as a private teacher in the field of education (Jariani, 2002). In this regard, the high potential task of the education ministry is to organize and arrange the information and communication technology in the whole countries; in many developed countries having technological industry, training computer sciences and information technology is the main lesson plan of high schools and universities. Due to the

importance of the computer development, training teachers should be considered roughly in this regard and the ministry of education has to hold the related computer courses to the whole teachers in this case.

Completion method:

This paper has been written to investigate the impact of the information technology on teachers' occupational skills. The completion method of the study is a descriptive-scale research and its statistical population includes the whole high school teachers of Kermanshah City about 2662 people. This study is carried out by 310 people using multi-steps accidental cluster-sampling method. A questionnaire made of the researcher is applied in order to gather the related data using LIKERT method based on teachers' occupational skills. The measurement instrument of the study is aimed at evaluating the designing, completion, testing methods of teachers. The method of gathering information is based on library, descriptive and field-based methods. The perspective of CD is also used by the Internet; Chi-square test is also applied to investigate the research questions. Finally, SPSS and Excel software have been used in order to analyze the data in this case.

RESULTS

Table 1: distribution table and distribution of teachers' occupational skills

Options	Observed distribution O	Expected distribution E	(O-E)	(O-E)2	(O-E)2/E
Little and very little	73	103.33	-30.33	919.90	8.90
Moderate	156	103.33	52.67	2774.12	26.84
More and very more	81	103.33	-22.33	498.62	4.82
Total	310				40.56

Table 8: statistical test

	Significance table of occupational skills
Degree of Chi-2	40.56
Degree of Chi-2 in 0.05 level	5.990
Degree of freedom	2
Significance level	0.000

As it shown, the measured Chi-2 in the level of 0.05 is larger than Chi-2 of the table. Hence it can be concluded that passing information technology courses can lead to the increase of teachers' occupational skills.

Information and communication technology:

This process has been consisted of three fields of information, technology and computer; the computer section as the hardware provides the equipments and necessary instruments in this regard; the data and information is considered as the main source of preliminary material streaming into the web. The communicative communications is to communicate the relationship between two other sections (Ghorbani, 2004).
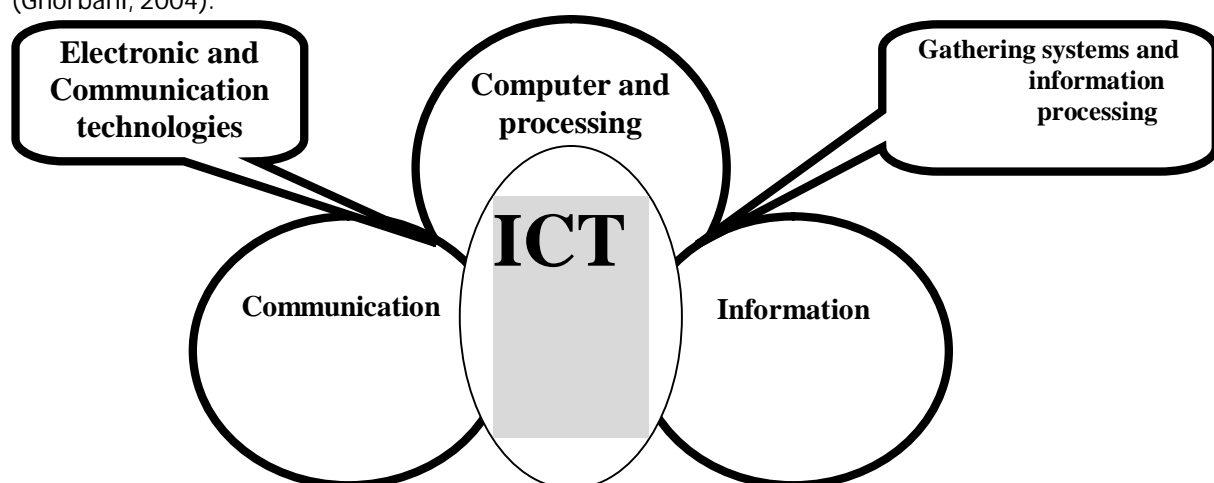

Figure 1: field of information and communication

The information and communication technology represents a collection of technological instruments and materials or equipments including computers, internet, mass communication media such as radio, TV, and telephone (Tinio, 2002).

Table 3: way of information technology influence on the process of change and innovation

More ↑ Penetration IT ↑ ↑	Invasion of information against the information	Organizational creation of organizational change
	Thirsty of information	Overcoming of old thoughts and keeping the recent status

←— **Little**   **More**   ←—

The information and communication technology skills have been formed as a framework to meet the whole requirements of the users in this pavement. At present, skills pointing by the information technology are formed as International Computer Driving License (ICDL).

Definition and levels of ICDL:
ICDL is subjected to the knowledge and skill of the computer basic level; the list of these necessary skills has been represented as following:
First skill: familiarity with basic concepts of IT information technology; second skill: familiarity with the use of computer and Windows; third skill: method of applying software of Word; fourth skill: method of working with Excel; fifth skill: method of applying Access; sixth skill: method of applying Powerpoint; seventh skill: information and communication of Internet (Motavazee, 2004).

Teachers' occupational skill:
These skills include the skills in the Branch 2 as following:
a.   Educational-training.
b.   Official and financial including the functional criteria of the class management, teaching planning, development criteria of educational and lesson activities and occupational behavior and moral criteria of representing the related tasks and form of educational testing issues.
Shaabani has divided a teacher's tasks or activities into three groups:
1-   Pre-teaching educational activities (decision-making/designing)
2-   In-teaching educational activities (patterns and teaching methods/completion method)
3-   Post-educational activities (testing)
Dr. Ms. Seif Naraghi considers the educational process in three fundamental steps as following:
Decision-making phase: teacher should make a decision about what he or she teaches (pre-teaching phase, educational design).
Executive phase: educational activities should be suitably provided by teacher
Testing phase: the progression of learners should be measured and tested (seif Naraghi, 2005).
In the process of implementing the lesson plans, the skills of the whole teachers are considered as the most fundamental element in this case. Although the social expectations have been tended towards teachers, but the main important expectation of teachers is subjected to the teaching profession or the completion of the teaching-learning process; for the reason, it helps to clarify the fundamental sides of teaching profession in this regard; this makes the most enjoyable way of teaching educationally. In the era of information and technology as the main success of the social systems, the changes of social-cultural issues should appear the re-definition of the teachers 'technological and scientific affairs.

High-school teachers
The high-school teachers should not only equip with the latest humanistic and perceptual skills but also they have to get familiar with the technical and scientific features to grow in their educational tasks (Safi, 2001).

The necessity of teachers' familiarity with information technology (IT) and international computer driving license (ICDL)
The first movement for growing global human is subjected to the special attention of teachers' training affairs; the optimization of the teacher training centers and the recovery of the higher education system can be considered as the greatest investment for teachers of short training centers in the future time. In the recent years, the attention towards the importance of the short training course of teachers has been potentially increased but the courses of information technology and ICDL have been complicated due to the lack of enough practical issues in this regard. These problems are as following:

Many high school teachers getting retired are not able to learn these new technological sciences or skills potentially; these teachers have got some physical and thinking problems and challenges such as lack of enough visionary, worry about the learning subjects and lack of easy availability to the Internet to practice ICDL skills. Connection to the informational webs and minor expenditures and the lack of concept of these new sciences has been the main problem for these teachers (Talebi, 2007).

The necessity of applying the information and communication technology in the process of education and learning

The information and communication technology has been appeared along with the third wave of the technology; now it has to conduct the development and conscious of the humanity in this precious era of the technology. By transforming the industrial community towards the informational society, the construction of a knowledge-based community should be achieved potentially. The informational technology can be considered as the greatest and high potential instrument for optimizing the efficacy of the training process (Nadernezhad, 2007). The informational and communication technology has been able to change many various changes in a short time making some challenges into the lifestyles of people. The role of the informational and communicative technologies is very important in the cycle of training process. In traditional learning process, a person has to frequently read and write; but along with applying the informational and communicative technology in learning process, the same person will be able to use his or her skill in these new informational and communicative technologies potentially; this also removes the whole obstacles regarding to the educational systems. By the use of visual world in learning process, we can reach to the new efficient methods of learning in this pavement. The reason of applying the informational and communicative technology is subjected to the process of learning and rapid education (Asnafi, 2004, p: 3). the carried out studies have been emphasized on the optimization of the educational efficacy level through technology-making of the educational setting; in addition the technological experts have also emphasized on the application of the new educational systems in learning-teaching process.

As we know the information process plays a key role in the development and progression of the whole communities; now, the accessibility and availability to the new knowledge and its management can facilitate the possibility of the development and progression process for many various communities potentially. Hence living in the present era requires the latest and progressive technological affairs based on the educational process; the reason is subjected to the following issues:

1- Optimizing the quality of learning-teaching process
2- Making equal learning opportunities
3- Paying attention to the personal differences
4- Making the self perfect and surrounding setting
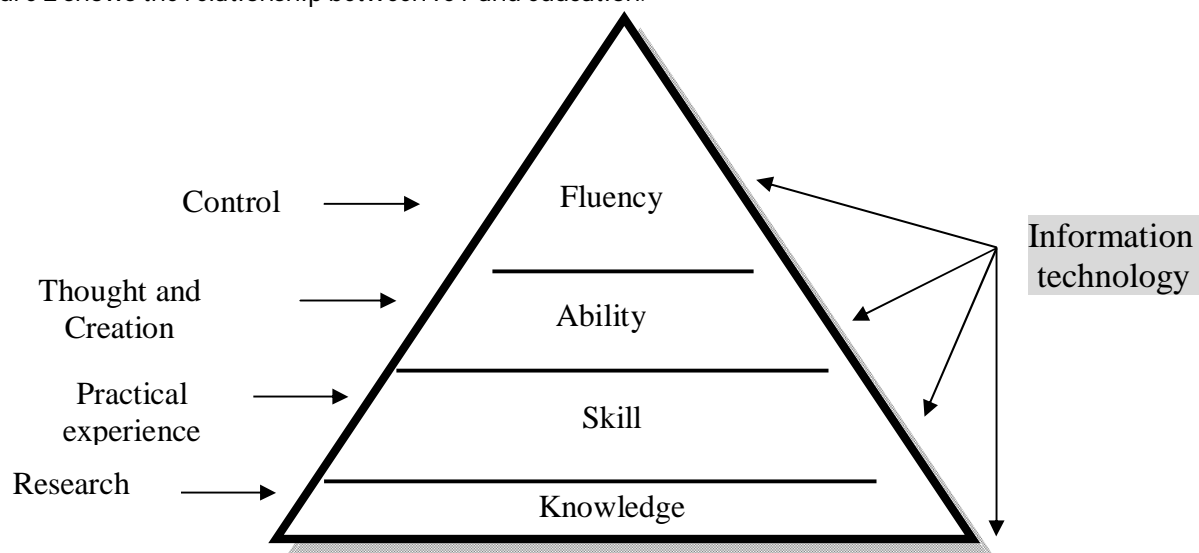
Figure 2 shows the relationship between ICT and education.

Figure 2: impact of ICT on the education

Targets of the informational and communicative technology in the process of the education:

1. Developing the accessibility to the education for all people including people without availability to the formal education; educating girls and women dropped off their education; handicapped and social detached people; people prefer to participate informally.

2. Progression of the educational issues for learners and teachers including people tend to increase their problem-solving ability, innovation and global communication skill with other people along with global

village and global hometown issues making friendship and intimacy feeling supporting the educational affairs and changing teaching-learning issues from traditional method to the new technological case (Talebi, 2007).

Main coordination of the information and communication technology in the world educational systems:
1. Equipping schools with the latest required facilitations and instruments to develop the information technology.
2. Optimized application of the information technology for changing the educational structure

Applying technology for making the learning opportunities and education for every people of a society
1- Developing the skillful humanistic resources for the society in the field of information technology
2- Using the information technology to optimize the quality of educational and teaching affairs in the country

According to the Article 53 of the Statement Y of the fourth development plan Bill, the similar orientation is followed in this regard. This article has been called as the development based on the wisdom allocating to the following issues:

Applying the information technology in the representation of the educational programs and lesson plans of the whole levels in the country equipping with the computer-assisted and web-based instrument (Mehrmohammadi, 2004, p: 168).

Categorizing the world's countries in the field of information and communication technology in the education system

There have been observed various affairs regarding to the information and communication technology in many different countries in all over the world; the leading countries: these include 13% of the world's countries such as the USA, Singapore and Germany along with the gigantic investment in this field. Pioneers: include about 11% of the countries such as Italy, Poland and Kuwait. Future countries: includes about 20% of the countries with huge plans for gaining this opportunity such as South Africa, Chile and Russia. Novices: includes about 19% of the countries such as China, Egypt and Philippine.

The left countries: it includes about 37% of the countries without having any regular or arranged plan for developing the information and communication technology such as Iraq, Kenya and Vietnam; our country is established in this category due to the lack of certain programs in this field (Montazer, 2004).

Application of educational technology

One of the most interesting roles of the information and communication technology in children learning setting is subjected to the ability of the given information by different methods including the pictures, sounds and motion. The representation of the related data and their relations can be achieved by the pictures and diagrams to facilitate the process of understanding and analysis of the information in this regard. The information and communication technology is able to manipulate the given information saving these data in various forms. At the same time, the whole students are occupying on the unlimited challenging affairs with relative control speed; there are of course some opportunities for developing and applying the vastest domain of the cognitive activities for them potentially (Lol Liz, 2003, translated by: Siami, 2004).

The regulation of Diaz four legislations has been represented for optimizing the level of students' educational process:
1. Emphasize on a good education not good technology: Diaz believes that the technological workshops should be established based on the suitable practices of teaching supporting the completion of technological courses. Every collection of the technological instructions includes the educational issues regarding to the Internet and computer training with enough experiences obtained from the various technological instruments. The workshop activities include the collection of technological training diskettes and web pages for every participant. The education should be based on educational issues arranging the learning regulation.
2. Focus on semantic-seeking teaching not attention to appearances: teachers should apply the latest technological instruments to find the talents of the students focusing on the learning motivation in this regard.
3. Group struggles for the progression of the methods: Benson (1997) has stated that the progression of the related methods is only established to optimize teachers' new technological affairs. Traditional educational methods are not enough to produce the creative productions because these productions require various technological skills. The educational members require the way of learning multi software issues in order to make and construct the multi-media educational web; the digital hardware and graphical designs have special educational skills and these should be supported by educational centers to develop the technological productions efficiently. Institutions can expand many abilities of people and the distribution of the whole productions between institutional individuals potentially.

4. Providing the educational background for teachers instead of bringing teachers into the educational centers

The development and progression of the computer services of the educational centers can be the greatest remedy for providing and meeting the educational requirements. For the reason, many educational institutions have constructed the educational facilitations such as rooms with hardware and software facilitations to remove any educational obstacles. Providing the interactive educational background is an imperative case for some people in job setting efficiently. Sometimes we require higher visual environments to learn the staffs in job setting; providing the educational background as the house-based conversation using the computer makes the education process more exclusive in this pavement. In this method, the users apply the most efficient time of their working hours potentially. This type of the education is similar to the teachers' education method teaching their students by the way potentially (Diaz, 2007; translated by Bani C. 2004, pp: 36-37).

The application of Bloom category for the development of the information literacy and certifications of Bloom information literacy:

Bloom category has been designed to conduct the information structures based on five basic elements of the information system being required in six levels of the educational purposes as following:

Hardware: the completion of the physical system

Software: steps of the educational system and display of the related data into the context of the system

Methods: tasks and activities of people for communicating with the system and experts of the same system

Table 9: category of Bloom information literacy

Levels of information literacy in Bloom category						
	Knowledge	Understanding	Application	Analysis	Combination	Testing
Hardware	Hardware parts of security code	What are achieving every part of hardware?	When the hardware is suitable for my requirements?	How can I build the part of software?	How can I build this hardware?	How the design of the hardware develop?
Software	Software parts of security code	What is the role of software?	When the software is suitable for my status?	How the software works?	How can I build this software?	When the quality of software reduces?
Data	Where can we get data?	What is the purpose of the data?	When can I use the data?	How can I represent the data?	How can I gather the data correctly?	What factors increase the value of data?
Methodology	What activity can be achieved?	What is the aim of one action?	When can I achieve an action?	What steps are in an activity?	How can I specify the activities?	What aspects are important for the activities?
Individuals	Who are experts?	What are the roles and relations of a status?	The person should challenge timely	How the person responds?	How can change the responds of people?	Why the person develops the system?

According to the above mentioned table, it can be stated that teachers should firstly begin from the top levels of the table in order to reach to the necessary recognition of the information literacy and the use of technology (Dinaround, 2006, pp: 6-8).

CONCLUSION

The present study confirms the impact of the information and communication technology in increasing the people occupational, designing, achieving and testing skills. These results can be represented by the possibilities potentially.

A. The culture of the information and communication technology in the process of learning-teaching has been completely optimized but it should be mentioned that these courses should be also planned with

certified and specified purposes equipping the educational units with computers and applying the most experienced and skillful experts in school environments efficiently

B. Teachers have got enough experience in obtaining their skills particularly in the four mentioned skills and about 50% of these teachers apply the same skills. Among the questions of the execution, the lesson and educational activities, the lack of relationship through the web with the schools out of the country have been represented in the lowest level and it may be the reason of their disability of the non-local language problems in this regard. In the skill of testing the discussion of the feedback through the computer and e-mail have been represented in the lowest level due to the lack of enough familiarity of students with computer. In skill of research the lack of enough familiarity with the Internet in domestic and foreign conferences is represented in the lowest level.

C. In the suggestion section of the questionnaire such as the problems of teachers in the use of information technology and communication, it can be pointed to the lack of enough communicative facilitation, lack of enough connection to the web, the limitation of the education time and the lack of enough continuation of the in-service education courses.

D. Due to the weakness of the student in the computer and lack of using the learned issues, we have to consider the new teaching methods

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