

Evaluation of Inservice Training Course of ICDL Skills for Teachers Based on Crick Patrick's Model

Zahra Msoumzadeh¹, Javad Sloeymanpour²

¹M.A of curriculum development At Islamic Azad University, Tonekabon Branch

²Curriculum development assistant Islamic Azad University Tonekabon Branch

Received: December 3 2013

Accepted: January 19 2014

ABSTRACT

Paying attention to human resources education and enhancing technical skills of manpower in training organizations have a great importance in all modern societies. In this regard, evaluation of in service training courses of ICDL skills for teachers based on crick Patrick's model is the overall aim of the research method is descriptive survey and in terms of the nature is of evaluation types, accordingly crick particles model was used. Population of the research includes 322 different educational levels teachers who have passed ICDL courses, 165 teachers were selected by stratified random sampling. Methods of data analysis are descriptive (frequency, percentage, mean, standard deviation) and sample inferential statistics. Research result and finding have shown that achievement of training goal the level of organizational compliance and knowledge and results feed back is higher than the available mean of the sample group and are meaningful, but goals achievement on the level of creating the vision are lower than the available mean and are below the desired level. But overall evolution of etchers inservice ICDL training course meaning and desired result is obtained.

KEYWORDS: Inservice training, evaluation, crick Patrick's model, ICDL, education

INTRODUCTION

The concept of computer literacy has entered education literature in many countries for a while, this means that in the current and future world, a person who can not use computer to obtain needed materials or to do his/her chores or professional tasks he/she will continually need others help. Thus, as literary of all citizens has considerable importance in the individual and social development of that society, it is necessary for each citizen to have minimum knowledge and skills required to use information technology (IT) and personal computer (Hasumi, 2007, P.31)

Holding short-term training courses of seven skills of using computer.(European computer driving license) which is internationally called ICDL, it is followed by knowledge and information technology concept and company of using personal computer and its public function, that ministry of education has considered it as a state institute and by teaching it to teachers, provides them with this science, efficiency and success in educating students (Bakhtiari, 2008,P.71).

According to teacher's great responsibility in the society education system, it is necessary for teachers' to gain necessary skill and ability in education and use today's technology. Short term ICDL training is of the most essential training programs that wide effort has been done in this regard seriously. Since, based on the available scientific findings 75% of learning takes place visually and these learning are fast and stable (Rezazadeh, 2011, P.63).

Accordingly, the present research seeks to evaluate teachers in-service ICDL training courses based on crick Patrick's model that studies effectiveness of training curses on the levels of reaction, learners, learning and results.

Theoretical Framework:

In-service training is continuous improvement of manpower in the organization, in term of skill, technology, knowledge through continuous and regular educational and curriculum planning that leads to the khedivial and organizational welfare (Soleymanpoor, 2003, p34). Thus in this study, education means systematic transfer of information and knowledge to a certain group of learners (Seif, 2006,p .28).

According to the research topic, educational evaluation is a process of results interpretation and information evaluation is a process of results interpretation and information evaluation. To grudge the overall objectives of education and participants success rate in a training course (Bazargan, 2003, p.23)

By ICDL training course we mean a course which is called seven skills of using computer (European compute driving license and it is internationally called ICDL and include skills of computer a basics, internet, Windows, Excel, Word, Power point, that a total of 30 hours has been predicted for this curse. (Hisami, 2007, p.27). Crick Patrick evaluation model is an evaluation model of a course effectiveness based on four give

* **Corresponding Author:** Javad Sloeymanpour, Curriculum development assistant Islamic Azad University Tonekabon Branch. Email: Javadsoleymanpour@gmail.com

levels: reaction, learning, behavior, results (Rouzbehi, 2012, p.43). In that in the present study it is a conceptual model and its components are as the following:

a) Reaction

By reaction we mean learning rate of reaction to all effective factors in implementation of a training course this reaction can be obtained through questionnaire or other common methods.

Reaction measures the participants feeling towards training programs (Satisfaction). These surveys are conducted, following receiving participant's comments about education, curriculums, homework, materials and educational tools, class or means, value and depth of educational content and etc.

Getting the correct and meaning full answers from the participants is very important and crucial in this stage. For this reason, crick Patrick has offered the following suggestion in this regard.

- Preparing a from to measure participants reactions.
- writing a persuasive message for participants.
- ensuring respondent of remaining unknown.
- tabulation and analysis of responses.

Appropriate responses lead to better holding of next training courses and encourage other staff to participate in these courses. In addition to senior managers opinion about continuing a training course, reaction evaluation results also can on effect in this continuation (Abtahi, 2005,p.72).

b) Learning (Knowledge)

Learning is determining learning rate skills, methods and facts that are taught to the participants and become clear for them during tanning course, and it rate can be realized through training before during and after participating in the training course. Crick Patrick has suggested the following strategies for learning evaluation.

Evaluation of skill, Knowledge, and attitude before and after training (pre- test and post- test)

- Applying control group if possible.
- Statistical analysis of results to relate learning and teaching.
- Using results for appropriate behavior.

According to Patrick, if tests are valid and reliable, trainings effectiveness can, be determined by comparing pre-test post-test result (Abtahi, 2005, p.72).

c) Behavior

Behavior means the quality and extent of changes that occur in the participant's behavior y taking part in the training course and they can be clear by canting evolution in a real workplace. This level is more challenging and critical than the previous level that cricks Patrick explains this is because of the following reasons: first: the participant's behavior by containing evaluation in a real workplace. This level is more challenging and critical than the workplace. This level is more challenging and critical than the workplace level, that crick Patrick explains this is because of the following reason: First: Participants should have on opportunity to change their behavior. Second: time of change in behavior can not he predicted in real. Third, organizational behavior during work.

Crick Patrick has suggested the following strategies to carry out the third level evaluation:

- considering useful time for participants to have time to. Behave as expected;
- Repetition of evaluation in appropriate times to ensure of permanent behavioral change;
- Applying a control group if possible to remove annoying factors that may affect behavior;
- Comparison of different conditions of evaluation methods for their proper and optional use.

D) RESULTS

By results we mean rate of achieving goals that are directly related to the organization. Measuring the fourth level is very difficult and in witch evidence results such as cast reduction, rework, displacement or disaster rate, production quality increase earning and sale are studied.

Crick Patrick has suggested the following strategies to carry out this evaluation level;

- considering right time after training to obtain result;
- Measuring organizational result through interview or appearance before and after training;
- Repetition of measurement of appropriate intervals.

According to Patrick, four levels of the mentioned model provide a logical framework for evaluation. He das considered this model in a pyramid and states that each four levels provided in his model is important and should not be overlooked; since through measurement of result of each level, we can have certain interpretation of other level of this model (Rouzebehi, 2012, p.44).

Staff training programs are as activities that are in the macroeconomic, political cultural systems of societies. Thus, their goals in the organizations or social systems totality should be in the same direction, meanwhile, staff training purposes in its broad sense are very extensive, since education of staff is a continuous process by which staff are helped to gain developing debits and approvable reactions, going knowledge and skills in the word it can be said that education system goals should consider individual, organizational and social; goals (Abtahi, 2005:121).

Jalali and Abasi (2003) have summarized major aspects of using ICT education of follows:

- Promote and enhance teachers' ability in the field of ICT and using it.
- Equip schools with facilities and tools needed for developing ICT.
- Optimal utilization of ICT to create learning opportunities.
- Use of ICT to promote educational quality and improve teaching methods (Bakhtiari, 2007, p.124).

There is a controversy in the views of experts. Typically, different approaches have been suggested for educational (General) evaluation in many books that can be used in the (Staff) educational evolution. These approaches have been suggested by experts in 1950 and 1960 than can be seen in "jangni" and "Brigze" (1974), "Goldston" (1993) and "Megger" (1942). (Saeedpour, 2008, p.50)

In line with these experts' beliefs, Bermli (2005) has identified six general approaches for the general educational evaluation that areas follows:

- 1- Target-oriented evaluation.
- 2- Free goal evaluation.
- 3- Responsive evaluation;
- 4- systematic evaluation;
- 5- Evaluation based on experts' opinion.
- 5- Quasi-legal evaluation.

According to "Bermli" (2005), target-oriented and systematic approaches are widely used in the evaluation of staff training (Ghaseminejad, 2005, p.98)

Rezazade et al (2011) have carried out a research in which "effects' in-service training courses on the staff efficiency at Islamic Azadi University of South Tehran based on Crick patricks model has been studied main research question is as follows: "Do in-service training courses have any effect on the staff efficiency at Islamic Azadi University based on crick Patrick's model? Finally, data analysis has down that the effect of in-Service training courses on the staff efficiency based on crick Patrick's model at the level of $\alpha=0/01$ is above the average and has a high impact. (Montazer, 2007, p.32)

Jahanian and Noruzi (2011) have done a research with title of study the effect of ICDL training Courses the improvement of staff performance at Tehran University, this research has been done with the goal of ICDL training courses on the improvement of staff performance at technical faculty of Tehran University campus by descriptive-Sarvy method. And results indicates that there is a relationship between passing ICDL training courses and staffs news skills, their accuracy and effectiveness, speed and value of staff work, their career success and attraction and interest creation in the staff (Nafidi, 2003, p.48)

Hasumi (2007) had obtained the following result in a research titled the relationship between level of computer skills (ICDL) certifications of faculty with their science production rate, that maximum number of who are familiar with ICDL skills are in humanities, agriculture, engineering and science, respectively. Data analysis indicates that there is a meaningful relationship between toueilarite with ICDL skills and since production.

Fathian and noruzi (2004) have conducted a research titled "study of optimal model of computer literacy for high school teacher of different fields of study in to regions of Tehran in connection with the necessity and important level of different skills of computer, they concluded that teachers' need to computer literacy is something different from seven skills of computer (Ruzbehi, 2012, p.35)

Dunkin (2008) concluded in disc studies that short-term in-service training courses will lead to the increase of knowledge, skill and professional attitudes of teachers, by which people can do their responsibilities effectively. Kellman (2008) studied the relationship teachers education and job experience and in-service training with students achievement among 128 teachers, 84 females and 42 males Result of this study didn't show any relationship between in-service training with student achievements among 128 teachers, 84 females and 42 males Results of this study didn't show any relationship between in-service training, experience and education of teachers with student (Alfasi, 2009, p.61)

Decking (2009) in a research about importance of in-service training concluded that in-service training in-service training increases teaching quality and teachers, skills and also it is effective in updating knowledge, specialty. Teachers, skills and also it is effective in updating knowledge, specialty, job skills, and improvement of work methods (Rezazade, 2011, p.30).

Greal and wild (1996) conducted a research titled 'observations and modes and Australian directors and application of information technology on 2689 directors who had comprehensive Knowledge of direct application and importance of information technology and particularly made use of computer for work or their skills. Results showed that most directors (managers) had minimum use of word processor and Excel spreadsheet, while they had maximum use of internet for work planning (generals. 1996, p.27). William (1998) concluded in a research on ICT (information and communications technology and academy c needs of

Scottish teachers that use of ICT is relatively low in Scottish teachers. However, most schools in Scotland have access to the internet, high school and elementary school teacher in Scotland used a small amount of internet, but they used application software's such as word Microsoft more (Jalali, 2003, quoted by Sen, 2003).

Research Questions:

- 1-How is the evaluation of in-service ICDL training of teachers based on the goals of crick Patrick's model?
- 2- How much is the achievement rate of educational goals based on organizational adaption?
- 3- How much is the achievement rate of educational goals based on the knowledge level?
- 4- How much is the achievement rate of educational goals on the insight level?
- 5- How much is the achievement rate of educational goals based the result level?

RESEARCH METHODOLOGY

The present study is applied with respect to the purpose and is descriptive with respect to the type and is evaluation in its nature. (Biyabangard, 2010, p.55). Research population includes all teachers of elementary, guidance and high school in Roadbed, Iran in academic year of 2013 that is 322 person. 165 teachers were selected by random stratified sampling. Data collection tool selected by random stratified sampling. Data collection tool is a linker type Questionnaire which includes 35 questions in the evolution level based on crick Patrick's model. In this tool, question of (1-10), (11-20), (21-30), and (31-35) study components of organizational adaptations, cognitive scope, insight scope and results scope respectively (Rezazade, 2013).

Face content Validity of tool was studied and approved by previous related research and estimated 187 by runbacks alpha and was approved.

Data Analysis method:

Analysis means a method through which the whole research process, from choosing an issue to gaining a result is directed in this study collected data has been analyzed by descriptive statistics (Frequency, percentage, mean) and inferential statistics of one group T, and According to the findings and obtained data, clear answers to the research question have been provided.

Research Finding:

According to the overall objective of the research that evaluates in-service training courses of ICDL skills in teacher of educational levels in Roadbar. Descriptive and interested finding are presented. In This section, overall table of descriptive statistics characteristics is presented.

Table 1) Frequency distribution related to the components of crick Patrick.

Model components	Number of sample	Mean score	Standard deviation
Adaptation	165	4.77	0/15
Knowledge		4.52	0/36
Insight		1.52	0/6
results		4.53	0/27
total		3.84	0/23

As it can be seen from the above table data, the highest average based on the components of cricks model is for the components of organizational adaptation 4.77 and result 4.53 and knowledge level 4.52.

Table 2) Statistical characteristics of the sample in the component of organizational adaptation and t-test results.

Adaptation component	Number 165	Main	Standard deviation	Standard error Of the main
One sample t-test		Degree of dome free	Difference Average	Significance level

Based on the data obtained from the above table, the resulting average in the component of organizational component is 4.8 with standard deviation of %15. As it is Seen from the above table, obtained I (148.812) with degree of freedom of 164 is meaningful and organizational degree of freedom of 164 is Table 3. Statistical characteristics of sample in the components of knowledge level one sample t-test.

component	number	average	Standard deviation	Standard error of the mean
Knowledge level	165	4.52	./333	./25
One sample t-test	-	Free dome Degree of	difference Average	Significance level
58.96		164	1.52	0/0000

According to the data in the above table, the resulted average in the component of knowledge level among teachers of sample group is 4.52 with standard deviation cf ./333. One- sample inferential t-test (58.96) is meaningful with the range of freedom of 165, and knowledge level of teachers based on the in-service ICDL training is desired.

Table 4. Statistical characteristics of the sample in the component of insight level and one-sample t-test results.

Component	Number	Average	Standard deviation	Standard error of the mean
Insight level	165	1.87	0/56	0/043
One-sampled-test -26.23	-	Degree of Free dome	Average Difference	significance level
		164	-1/13	0/000

According to the data in the above, the resulted average of 1.87 that is lower than desired average of (3), and calculated T.(-26.23).

With derange of freedom of 164 is lower than the desired level but it is meaningful, and this result shows that based on the crick Patrick's model, result training cores hasn't led to the increase of desired level of insight in teachers and one -sample t-test result.

Component	Number	Average	Standard deviation	Standard error of mean
Result level	165	4.53	0/270	0/021
One-sample t-test	-	Degree of Freedom	Average Difference	Significance Level
72.74		164	1.54	0/000

Descriptive statistical data in the above table shows that average of the people in the sample in obtaining results is 4.53 with standard deviation of 0/270 and calculate t-test (72.74) is meaning results in the relevant training course is in the desired level.

Table 6. Statistical characteristic of the sample in the total results of the evaluation and one-sample t-test result.

Component	Number	Average	Standard deviation	Standard error of mean
Total evaluation	165	3.38	0/230	0/017
One-sample t-test	-	Degree of Freedom	Average Difference	Significance Level
46.68		164	0/838	0/000

Descriptive statistical data shows that the resulted average is 3.83 and its standard deviation is 0/230, calculated one-sample t-test (48.68) in the overall evaluation is meaningful with degree of freedom of 164 and obtained average is higher than the desired level band overall evaluation of in-service ICDL training course based on the result model is the desired level. How much is the achievement rate of educational goals based on the organizational adaption?

According to the obtained data, resulted average in the organizational adaption component is 4.8 with standard deviation cf 0/15. As you can see from the above table, obtained I (148.812) with degree of freedom of 164 is meaningful, and educational goals of organizational adaption is at the desired level.

How much is the achievement rate of educational goals based on the knowledge level?

As it is clear from the obtained data, resulted average in the component of knowledge level among teachers of the sample is 4.52 with standard deviation of 0/332. One-sample inferential t-test (58.96) and knowledge level of teachers of in-service ICDL training courses is optimal.

How much is the achievement rate of educational goals based of the insight level?

According to the obtained data, resulted average of 1.87 is lower than desired average of (3) and calculated (-26.23) with degree of freedom of 164 is lower than derived average level of sample group, but

obtained value is meaningful which based on the Crick Patrick's model of relevant training course hasn't led to the increase insight desired level. But obtained data is statistically meaningful.

How much is the achievement rate of educational goals based on the feedback level of the results?

Descriptive statistical data shows that resulted acreage at the feedback level of results is 4.53 with standard deviation of .270 and calculated t-test (2.4) is meaningful with degree of freedom of 164 and abstaining results from relevant training course is at the optimal level.

General Discussion and results of the study: How is the evaluation is 3.3 and its standard deviation is 0/230, and calculates one-sample t-test in the overall evaluation (4.6) is meaningful with the degree of freedom of 164 and obtained average is higher than optimal level and overall evaluation of in-service training course of ICDL based insight level has a lower desired level. However, component of the organizational adaption knowledge and results levels are meaningful and at a desired level.

In a study done by Hesami (200) and in connection with metrical and non-material factors role to increase staff motivation to participate in ICDL in-service training courses, results showed that from view of supervisors and learners, role of these factors were very high and finding showed that staff believed in the role of different factors (material and non-material) in the increase of staff motivation to participate in ICDL in-service training course more that supervisors, it seems that ICDL is an international degree for learners.

In a research done by Jahanian (2001) on the study of ICDL effect and staff participation on the overall in-service training showed that staff believed that material motivation had a slight effect on their participation, but supervisors believed that material (مادی) factors had a high effect.

Also, in Ekhvatis research (2002), in view of staff, the values of skill, knowledge, specialty and proficiency of teacher in ICDL in-service training courses is high. Sharfi in his research in 199 concluded that applying specialized teachers in teaching leads to increase of in-service training effectiveness and teachers and staffs efficiency.

In addition, in research done by Eliz (2008), Maylo (2009), Hamans (2007) and Boid (2009) on the efficiency- in service training is at the derived level, training courses of computer and IT are necessary and lead to updating of technical skills and technology of teachers, directors and staff that is along with the results of this research .

Along with obtained results of evaluation teacher's in-service training courses of ICDL and efficiency there types of trainings for teachers suggest learning development in the following technical and knowledge skill processes:

- 1- Technical and scientific knowledge and skills in windows.
- 2 - Technical and scientific knowledge and skills in the software installation.
- 3 - Technical and scientific knowledge and skills in the use of power point.
- 4 - Scientific knowledge and skill in using computer and related software's in classrooms and office services.
- 5 - Required Technical and scientific knowledge and skills in the use of email.
- 6 - Required Technical and scientific knowledge and skills in the use of word and Excel.
- 7- Required Technical and scientific knowledge and skills in the use of CD write, SPSS and charts.
- 8- Necessary knowledge in the use of search engines and required information search.
- 9- Knowledge and skills needed in the general search on the internet.
- 10- Thorough knowledge as ICDL skills as basic skills in technology.

Along with in-service training of computer skills and ICT, following components are focused on:

- 1- Efficiency and productivity enhance.
- 2- Learning quality improvement.
- 3- Manpower training proportionate to the age of knowledge information.
- 4- The fastest and best Source of information gathering in field of research.
- 5- Review, reuse, correction and improvement of work quality.
- 6- Attractiveness and enjoyment of variety of variety of material presentation
- 7- Increase of innovation and creativity power.
- 8- Creating informal teaching space.
- 9- Boosting self-confidence and elf-reliance.
- 10- Easy access (accessibility), selecting and interpreting information.

REFERENCES

Persian references:

- Abtahi, S.H. (2005). Modern methods of evaluating courses effectiveness, Tehran: Management and development publication, no.18.
- Abili, Kh. (2006). Evaluation of plans and training programs, Tehran: Publication of international institute for adult learning methods.

- Bazargar, A. (2010). Educational Evaluation, Tehran: Sat publication.
- Bakhtiari, M. Ahmadi, GH.(2007), Effectiveness of ICI in-service training of high school teachers in Esfahan, Journal of knowledge and Research in educational science, no.B.
- Biyabangard, E. (2010). Research methods in psychology and educational science, Tehran: Davan publication.
- Jalali, A. Mohammadali, A.(2003).Information and communication technology (ICT) in other Worlds countries education, Curriculum Conference in the age of communication, Curriculum forum.
- Hesami, T. (2000). Relationship between familiarity level and computer skills certification (ICDL) of board of faculty and their rate of science production, new ideas in education, Bahar 2, (2 (issue 6)): p.p.1-3
- Rezazadeh, B., Khosravi, H.R. Tuntab, A., Haghighi, s (2011). The effect of in-service training courses on the staff effectiveness at Islamic Azad witer Journal of economics and business, 2011; 2(1): pp.11-22.
- Saieedipour , B. Eslampanah, M, mohammadi, s (2000). Presenting a conceptual model of planning based on ICT and evaluating its proporticanality level to curriculum development system, curriculum development system, curriculum studies, fall 3(10): p.p.65-93.
- Seyf, A.(2006). Research psychology, Tehran: Agah publication.
- Soleymanpour, J. (2003) in-service educational curriculum developing of organizations, Tehran: Noshvahsan.
- Ruzbehi, M, (2012).Stady of manangers and teachers need to Icdl in Esfahan, M.A.These, Islamic Azadi University, Khoraysgan Branck
- Ghaseminejad, A. (2005). Stady of practical Solutions of activation. Of computer Work shaop and ICDL Esfahan Schools: Educational organization.
- Montazer, Gh; f. Fathian, m. (2007). Design of a developing model of information literacy in Iran, Planing research Journal, in higher education, no.44.
- Mehrmohammadi, M.(2007), ICT and its relationship with education, published research article, research and scientific of "Pouesh Journal".
- Nafici, A. (2003).Visions, Missions, general Goals, It strategies in education, Draft of approved text of approved text of guide concil (شورای راهبر), it in Tehran education: Institute of education.
- Naderi, E., Eyfnarghi, m.(2006). Research in human science and its evaluation methods, Tehran: Badr Publication.