

## Evaluation of digital literacy training staff



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### Abstract:

Teachers as the pre-digital sentry cultural change and education to the further utilization of facilities and facilities for ICT and digital literacy should have to the desired information. This study is looking for answers to this question that digital literacy among teachers who passed the ICDL training courses or have the interest and need for learning computer What is the deal? And whether the acquisition of literacy courses in digital intermediate and high school teachers of Ilam province have been effective? This research studies and descriptive survey (survey) that the community education staff and Junior Secondary Education Ilam province have a total 5373 cases were performed. To determine the sample size of the sampling Morgan (Kersey R. He and Morgan. Dec. W. 1970). Number 384 as a sample with a quota method was selected. Collect data from the two questionnaires were used. Questionnaire and digital literacy assessment questionnaire. Data analysis Descriptive statistics and statistical tests t, ANOVA, Pearson correlation test, Kendall tau B, Spearman lsd post hoc test was used. The results show that 26.8 percent had full digital literacy digital literacy and 52.3 percent have not earned. But 20.9 percent of higher education and training can acquire digital literacy. The results also show that more men than women in business skills, ICDL have been successful. The digital literacy of secondary school teaching staff more digital literacy is the Junior Staff. Digital literacy staff have personal computers significantly more than employees who do not have a personal computer .. The mean score on the digital literacy courses to employees who have passed more freely employees that courses through the public service have passed. Employees in the teaching of computer use compared to teachers who teach computer use do not enjoy greater digital literacy. Digital literacy among personnel qualification and training of education there is a significant correlation.

### Keywords:

Digital literacy, staff trainin, courses ICDL, Information and Communication Technology.

## **Introduction:**

Today, the role of information technology unmatched in the life of societies and peoples of the world, the world's developed countries who are not covered, have found that using computers and information networks can, to create revolutionary in training so far has been unprecedented. Modern teaching methods in some cases using computers in class is done effectively and one of the methods developed in the world that is superior to many traditional methods.

To achieve this purpose, preparing necessary facilities and equipment in schools, but more importantly, the infrastructure and more teachers are ready. Therefore, one important and essential steps in the education of our country to promote the knowledge and digital literacy are teachers. Digital literacy means the ability to understand, to use, and acquiring various data calculated using a computer and the Internet (Glystr 1997). In the past two decades in developed countries, a discussion titled "computer illiteracy" as that in the years The theme of the recent "ICT illiteracy," or lack of familiarity with ICT is renamed.

That our teachers for their duties for their outcome, in addition to increasing knowledge of teaching field and office procedures familiar to students being in class and in their willingness to create interest and require skills that the teacher can better understanding of texts help the environment and Teaching - learning for both sides to facilitate and enjoyable. For those teachers who can teach this kind of blessings, and enjoy your time together to benefit students, needs education.

In this regard, teachers need training, ICDL training is in education as a comprehensive and in Ilam few steps. In our country every day now electronic and digital services is growing, but due to lack of knowledge and familiarity with people using their services are not yet widespread, one of the reasons for low digital literacy of the people.

Research results show Which gives use information technology in organizational productivity and effective education 32.6 percent in financial services and administrative process is involved (J. Cousins 1383) in the field of training of educational software can be the effect on learning lessons . The results show that the use of electronic virtual environments 74 percent in chemistry teaching is effective. In research conducted by Plgrvm little knowledge and skills of teachers, one of the main barriers to using information and communication technology in 26 countries were studied (Plgrvm quoted Jamshidi 1385).

Also, many teachers lack the knowledge of computer use, resistance to change traditional education methods, non-familiar English and the like of technology in the learning process and do not use Teaching (Rajabi, 1379). Some studies also lack adequate hardware and software, lack of trained manpower and lack of clear purpose of increasing use of computers as barriers to computer literacy teachers have mentioned (once in 1997) in 147 countries from acquiring literacy training for ICDL use digital certificates and even to employ it as a document is considered necessary for study answers the question that digital literacy among the teachers who have completed courses or according to interest and need for learning computer deal How much? And whether the acquisition of literacy courses in digital intermediate and high school teachers of the province have been effective?

Overall research goal:

This study of knowledge about digital literacy among teachers and high school guidance Ilam province is done.

### **Partial objectives:**

Teachers in different ways and in different circumstances to deal with the digital literacy learning.

Understanding these differences can in Program better planning for digital literacy movement can help. The present study also considered the following objectives are.

- 1 - digital literacy among teachers with personal characteristics such as income, having a personal computer at home or work computer at school
- 2 - The difference according to education and teachers training course

### **Research questions:**

- 1 - digital literacy among teachers is how much guidance?
- 2 - digital literacy among secondary school teachers is how much?
- 3 - What percentage of high school teachers did not pass ICDL training are different?
- 4 - percentage of teachers guidance did not pass ICDL courses have?

### **Research hypotheses:**

- 1 - digital literacy between male and female teachers there are differences.
- 2 - between digital literacy and high secondary school teachers are different.
- 3 - Having a personal computer is effective in enhancing digital literacy.
- 4 - digital literacy among teachers between the official ICDL courses and teachers who spent their free periods have passed There is a difference.
- 5 - digital literacy among teachers who teach information technology use than other More teachers.
- 6 - between education and digital literacy among teachers and school guidance courses are related.

### **Theoretical research:**

If teachers provide the necessary facilities could be more effective in teaching methods exploit only in this case that we can serve the science and technology in teaching and training we were. Today, the explosion of electronic information through new technology nature knowledge (education) has changed, in what students learn, fundamental changes have appeared. Instead they retain information they must learn that how to obtain information from the data how to use the data and how they combine (Zvfen, Lotfi-Pour, 1379).

In the present era, most scholars and educational experts believe that the peaceful development of knowledge and information explosion, penetration of various technologies, especially electronic technology in everyday life, the emergence of various businesses, inventions and discoveries in the area of nanotechnology and ... so communities others have transformed the structure and methods of traditional training systems (direct learning) are not able at the current situation of young people to challenge the world are constantly evolving ready. Most educational institutions in developed countries, this heavy responsibility to have a good feeling and the need to change and innovation in the structure of its educational system and emphasize that those methods. These countries are trying to teach skills necessary to their teachers, their educational approach toward teaching as soon as possible based learning methods, knowledge produced by the students, rational leadership training process for the desired outcomes and appropriate knowledge era and lead to global developments (the growth of educational technology, January 83).

### **Digital media literacy (digital)**

If you want to media literacy new media with new communication technologies and the limited information, we can with different interpretations of digital literacy, computer literacy, Internet literacy take names. Of Glystr, digital literacy (digital) "ability to understand and use information in multiple formats, and a range of sources, when offered by computer are is (Glister, 1997). This Of education related to literacy information and communication technology, such as word processors, web editors, and e-mail software is scripted.

Therefore, considering the important role of technology in shaping life in contemporary societies, gaining more than the education is more important. This means to acquire literacy skills in using new information

technologies of communication.

After a decade in the 80th century, personal computers entered our homes were about to enter the world of new stage of his life was. With increasing user personal computers among various social groups, slowly cease huge transformation in the foundation was poured and the entry of communications networks and internet connections to the scene to connect home computers to the network, we were suddenly faced with a world in which simply pressing a few keys of the latest news can be news in any field, scientific, political, social and others were informed. In fact, the dramatic transformation in the world of science and technology that could be formation of the fourth wave of technology will learn , due to the developments associated with the issue of data processing technology, computerized manufacturing equipment and telecommunications infrastructure, the emergence and development of knowledge is information technology ..

Concepts such as E-Learning, E-Commerce, IT, ICT, ICDL, etc. The only parts of this transformation will be profound, and our physical world to the virtual world will step in and put in a virtual state with a virtual government will live. In Among these developments on the role of educational systems and Effectiveness Teaching - learning process as well as effective interaction and additional training on facilitating and accelerating the transformation is very important, so addressing concepts related to it as undeniable necessity is obvious,

#### **Methods:**

This research studies and descriptive survey (survey) is. In educational organizations, governmental, industrial and political, often a survey is used. This method for gathering detailed description of current situation with the intention that these data adjusted to correct the situation or be used in or for the improvement plans that have been implemented. In this research, not only unclear is the status quo but to clarify the current situation compared with the desired condition or set pay standards (Dyvbaldby. Dln quoted Najafi Van Zand 1373)

In this research, including applied research is also. Applied Research Development Objective knowledge is applied in a particular field. In other words, applied research toward practical application of knowledge to be guided. The results of this type of research in education and to help decision related to the educational system is used. (Sarmad et al 1379).

The main purpose of Digital Literacy Project Evaluation Training Education staff were. So in this design method, digital literacy survey the present status of the staff comes done.

Research community:

Population consisted of all secondary and high school teaching staff Ilam that criteria ICDL courses are the number of Junior High School in 2409 and 2964 and a total of 5373 people are.

#### **Sample and sampling:**

To determine the sample size of the sampling Morgan (Krjsy R. He and Morgan. D. W 1970) was used. This table than other methods that brought the sample size determines the maximum number of sample shall survey is suitable for projects. Based on this table for five to six thousand population nearly 361 people have determined that in this study to predict the loss of subjects due to the number 384 as the sample was estimated.

Total population in the province of teachers teaching secondary and high school is that 5373 persons of 384 persons have been selected as a model. Share each city and region according to the population of teachers was identified as the percentage share of each region was determined.

#### **Sampling:**

Given that the comparison of different areas of educational planning based on the digital literacy levels have therefore the study sample than the number of employees per region / city were considered. And training area of the total 14 provinces were selected so the first stage using the quota method was selected. In each region, and the sex ratio is also observing point.

### **Research tools:**

Collect data from the two questionnaires were used. Questionnaire in which personal characteristics and information about computer courses, its use in teaching and how to use it at home, teachers were asked. Digital literacy assessment questionnaire.

The questionnaire consists of nine parts: 1 - General Information Computer 2 - Management Information Repository 3 - Storage and security system, 4 - 5 word processing skills - communication skills (email and ...) 6 - 7 Web skills - database data search and data storage 8 - Page 9 extensive - information skills Every part of this questionnaire with 20 individual scores that you will earn 16 grade and above that level, ie has the skills and can use the computer to the field. If a person scores between 10 and 15 seems to be that the person has some knowledge but need more education or training is to learn that aspect. If individual scores are lower than the 10 it needed more education a person has and exercises. The three choice tests and answers yes, I'm not sure but am not sure is probably not.

Validity and digital literacy assessment questionnaire:

The questionnaire in 2001 and 2005 by Deborah Rover design and the University of Washington in May 2005 were reviewed. In several studies using this questionnaire and its validity between 78 to 92 percent alpha test Kcronbakh have mentioned.

After the Persian translation of this test to assess face validity and content available to a number of experts in the field of computer and English language were also measured for construct validity of test scores in the present society with a questionnaire in which another test of the seven skills ICDL test was evaluated was the equivalent term test of 21 questions from the ICDL Skills test the technical and professional organizations have been extracted from the country. Correlation for two tests with the alpha Kcronbakh with the  $r = \% 73$ .

Validation test re test was re-assessment scores and correlation equal to two tests was  $r = \% 85$ .

### **Research Methods:**

For the implementation community first and then study sample were determined. The study sample than the population of employees in each region selected from all regions of the province and then a questionnaire was distributed questionnaires to coordinate the implementation of instructions for interviewers formulation and implementation of their justification for running questionnaires were given to them to determine their validity Evaluation of digital literacy as the first 30 questionnaires were selected and then ICDL Skills Test was held. Correlation between calculated and test the confidence of their validity assessment questionnaire interviewers were starting to implement each region / city than the sample size and gender in secondary schools and junior men and women were on the run in terms. Questionnaire performance was emphasized in meetings that this is a self-assessment test and no effect on employment and administrative issues they will not. Therefore, according to the instruction to respond. Employees were asked if the person of course did not pass the seven skills is no special skill required Introduction questions about the skills that can fill mark. After collecting the questionnaires, the response was extracted and then encoded by spss statistical software were analyzed.

### **Data:**

Data analysis of descriptive and inferential statistics were used. Frequency, percentage, cumulative percentage, mean, variance, standard deviation, standard error of mean, minimum, maximum cross-tables, descriptive statistics are used in this study they are. T tests for independent groups, ANOVA Anova one-way, Pearson correlation test, Kendall tau correlation coefficient no, LSD post hoc test and Spearman correlation coefficient, including inferential statistics are Frzyyat analysis are used. To explain the data from column graphs, circular and multi-dimensional is used.

Results, Discussion and Conclusion:

. Results of analysis of data showed that:

67.2 percent of the sample holders of educational personnel qualification and 24.5 percent have bachelor's

degree diploma are however also significant 6.5 percent and 1.9 graduate also holds a diploma are. According to 77.9 percent of their employees spend ICDL courses and 22.1 percent still did not pass these courses are. 13 percent of the people in the Junior and 9.1 percent are in secondary school. Personal computer having one of the most important factors in learning, digital literacy and having a computer at home can be even general computer literacy of the entire family members help. On the other hand working with computer anxiety in some cases prevent the learning skills required in this regard is actually having a personal computer can be much less significant. For this purpose the teaching staff were asked whether you have personal computers that were 60.2 percent said that personal computers are having the device and 39.8 percent have at home. The higher the percentage of secondary school, is probably due to the high school teachers usually need a computer in teaching is more than Junior. And there the other hand computer workshops in secondary schools can also create more motivated to also. The results show that 46.3 percent of employee skill bases to have a good business. 38.7 percent of the personnel files management skills are well learned. While 22.1 percent of information security skills employees have acquired. 35.1 percent of the number of teaching staff and two Junior Secondary WORD word processing skills and 26.7 percent of employee skills Excel spreadsheets, the number of content provided 22.7 percent of the staff skills, communication skills, 13.6 percent of the staff via email 12 percent employee skills, employee skills, 12 percent of bank Web information (access) have won these results indicate that whatever skills were needed more for Kankan the acquisition of skills has also increased. Type of computer use and Internet Information Technology 22.4 percent of employees use the most common type, typing documents and letters, administrative, research and research institutes and educational activities do most types of computer use among workers is .81.5 percent ICDL training employees among the 83 to 85 years have passed these years, according to the coordinated implementation of country projects, the provincial education training during actively in the development of technology has had. Objectives of information and communication technology training to teachers is that while its use and its application in private affairs, the area also provide students. Digital literacy teacher who can win the new media in education and training of traditional training Mbty on digital technologies will lead. Using information technology in teaching can be binding classes varied and interesting training may also increase the students will be learning. Training staff in response to the question of whether the teaching of computer do you use? 28.3 percent yes and 71.7 percent have a negative response. This result indicates that despite the necessary training to technology and the importance of teachers still need to use or provide the necessary facilities for use yet. But for this purpose also asked them whether in school computer use? 51.5 percent have said that the schools have computer use. According to these results, despite the existence of computer usage in schools where teaching is less. 48.5 percent of sample teachers in this study have stated that the possibility of using computers in schools there. The results for the response to this question a few percent of teaching staff Education Ilam digital literacy are significant shows that 26.8 percent had full digital literacy digital literacy and 52.3 percent have not earned. But 20.9 percent of the necessary skills with training and further training can acquire digital literacy. The results also show that more men than women in business skills, ICDL have been successful and the percentage of women who have a need for retraining than men. 26.8 percent of total employees who have acquired digital literacy 24.2 percent of secondary school teaching staff and 18.7 percent of teachers guidance skills ICDL. Have won. However, the Education priority in training school personnel and province of high school staff and high school staff often spend six skills, while most of the third Junior Staff Course and the rest passed through the non-teaching organizational skills have been lost. Teaching staff with bachelor degree with highest 18.6 digital literacy are compared to other employees. Digital literacy to the lowest employee is having a degree diploma in secondary and high school work.

Men in test scores measuring digital literacy and Mean 52.36 85.18 SD scores of women in this test is 62.7 with standard deviation is 47.97. T test to compare the Dvmyangyn groups showed significant differences in

men and women acquire digital literacy digital literacy, ie significantly higher than men's digital literacy teaching staff are women. The mean scores of secondary school staff in digital literacy assessment test 88.87 52.38 SD Junior Staff and Mean score in this test with a standard deviation of 58.77 is 45.74. T-test performance for both groups indicated a significant difference between mean scores of two groups is significant to the digital literacy of secondary school teaching staff more digitally literate employees is Junior.

Mean that employees are having a personal computer in digital literacy assessment to test 88.09 50.45 SD score and Mean staff have personal computers in the exam 45.22 52.86 with a standard deviation is the difference between the mean t-test to compare the mean difference was calculated. The results show that digital literacy personnel with personal computers are significantly higher than employees who do not have a personal computer.

Digital literacy scores in three groups of employees and ANOVA were compared to the first group of employees who form the ICDL courses and in-service education organization have passed. The second group are the employees of the ICDL courses freely in vocational centers, schools, or to free their students have learned. And the third group are employees of the courses and passed into service for more learning centers in the same period of vocational re-released or have been through. Mean scores of digital literacy in the three groups of personnel with the ICDL courses for public release, or to have passed both are statistically significant. The results of this test indicate that scores the digital literacy courses to staff free setter are compared to those who have passed the state is significant.

Suggestions from the results:

- 1 - Open ICDL training courses, especially in skills that are most used in teaching such skills and work with computer fundamentals, word processing, page ten Wide (Excel), story presentation (PowerPoint) and Internet.
- 2 - Web and holding competition in this field for teachers of information and exchange experiences in the virtual world can be greater knowledge of teachers in the open.
- 3 - Determination of guidelines encouraging more employees to use information and communication technology in teaching
- 4 - Removal of barriers to teachers using computers in schools, including the determination of score managers in evaluating the workshops and encourage active Their schools.
- 5 - Women pay more attention to the use of information technology employees at the school. And determine the mobile and fixed facilities to support workshops to school administrators and teachers confidently from school computers to increase their knowledge of digital use.
- 6 - Given the results of this research, digital literacy who ICDL courses to have spent more freely. Therefore recommended to the conditions provided to employees free courses and passed the ICDL test centers active in the organization of education and skills of employees with standard tests for theoretical and practical skills assessment and, if sufficient to issue certificate of service

Recommendations resulting from studies:

- 1 - spent learning digital literacy for its use in teaching can not be effective, but teachers must learn how the teaching of literacy in use.
- 2 - Based on transformation groups ICDL training courses in Portugal than face to face and virtual training so that training and evaluation form online may be financial constraints and the time and place for training teachers to at least reduce
- 3 - Development of non face to face training courses e-learning methods, while saving costs, time and space limitations also kills. On the other hand teachers getting involved with electronics and computers for learning and participation in the tests can be practical for them.
- 4 - According to the results of research based education in digital media benefit of more students and also

affect the quantity of teaching hours is recommended, so Education starting in the smart classes and special schools with facilities and equipment Intelligent alarm at school in public schools in the province to bring the sound. For this purpose, teachers can become familiar with the technology used in making these centers can also lead to the flourishing talents of students and teachers of digital literacy is deepening.

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