Identifying Contexts of Application of Electronic Education in Training of Youth Rural in Ilam Province, Iran

S.Jamal Farajollah Hosseini [1], Farhad Lashgarara [2], Azam Sanjabi [3]

[1, 2, 3.] Department of Agricultural Extension, Science and Research Branch, Islamic Azad University, Tehran, Iran
f_lashgarara@srbiau.ac.ir

Abstract: Rural youth are only producer of future in providing the raw materials and food and industrial, productions in society. Youth are most number in society in terms of unfavorable living and less of suitable state of Training and improvement naturally; they could not advanced producer to progress agriculture sector. Rural youth immigrated to cities in result of unemployment and loss of training the cities have problem with rural emigration. The new technologies in rural area causes that youth can provide education needs. For this purpose, this research is accomplished with The Feasibility of E- learning Application for Training rural youth in the City of Ilam. It is applied research and research method is correlation. Questionnaire is main instrument in research and to study the observing research instrument, guide professor and experts and advisors got questionnaire. For the measure of questionnaire constant we take primary test with 20 questions and Cronbach's Alpha coefficient is calculated 87 percent. Statistical population of research is 7950 people of Ilam rural youth. According to Cochran formula 150 people are sample number and with helping of class accidental sampling method is selected best descent statistical analysis is done with Spssversion12 computer software. Descriptive conclusion of this research is presented that social and economic factors are most effective factor in performance of E-learning. Training and searching factors are less effect in performance of e-learning. Results of regression analysis presented that social and training factor are most effects in E-learning for rural youth.
[S.Jamal Farajollah Hosseini , Farhad Lashgarara , Azam Sanjabi. Department of Agricultural Extension, Science and Research Branch, Islamic Azad University, Tehran, Iran. Journal of American Science 2011;7(3):515-519]. (ISSN: 1545-1003). http://www.americanscience.org.

Keywords: E-learning; rural youth; electronic education; training

1. Introduction

Majority of the population in the developing world lives in rural areas and they have no or little access to information. Iran is no exception and about one third of its population which lives in rural areas have limited access to information.

During the last two decades, the world witnessed an unprecedented growth in area of information and communication Technology (ICT). ICT helps people to communicate effectively, overcomes the limitations of time and space, empowers people by providing information and knowledge, provides income generating and learning opportunities, increases government transparency and efficiency and enables people to express their concerns and to actively participate in decision making processes (Asian Development Bank, 2004).

In terms of rural development, ICT can play an important role in improving the quality of life for rural people. However, the promise has yet to be realized due to the lack of connectivity and accessibility to universal service and markets among rural communities. Therefore, it is necessary to remove the impediments faced by the developing rural economy and provide basic infrastructure in rural areas to enable the spread of ICT. This would enable ICT to be part of a comprehensive socio-economic development strategy for rural development as a means, not an end (Lee and lee, 2004).

Perhaps the most obvious advantages of ICTs is development of e learning system which is dynamic interaction and flexible schedule. In terms of dynamic interaction, the web-based instruction presents an enormous amount of information through various interconnections that offer students a rich exploration environment (Chenn, 2005).

ICT can play an important role in facilitating students to acquire knowledge. However, the promise has yet to be realized due to the lack of connectivity and accessibility to this service. Therefore, it is necessary to remove the impediments in developing and providing basic infrastructure to enable the spread of ICT.

Bridging the digital divide between urban and rural areas is one of the challenges facing governments and policy makers today. Factors that contribute and exacerbate this divide include economic: ICT infrastructure remains cost-prohibitive for many communities and nations; geographic: terrain, distance and infrastructure; technological: increasing skills required to participate in the ICT economy; cultural: inequalities in access and participation and political: long-term investment

versus short-term political cycle (Kushner and Chong, 2004).

In Iran due to centralized planning and as a part of national development program, a radical approach to establish the community e-centers (CeCs) by the government in the rural areas is underway. For instance, the Ministry of Agriculture along with the Ministry of Communication and Information Technology have established more than 6000 CeCs in rural areas, and more than 52000 villages in Iran have access to telephone. The goal is to establish more than 12000 CeCs by the end of Fifth National Development Program. (Iran ICT News, 2008).

Many studies have identified important factors in affecting the application of the ICT in an education system [Rusten and Ramirez, 2003; Dirr; 2001; Barajas and Owen, 2006; Surry, 2002; Ebadi, 2005; Sribhadung, 2005;]. Some of those results summarized in Table1:

Table 1: Factors Affecting the Application of ICT in an Education System

Factors
Infrastructure, hard ware, soft ware, skills, cultural and organizational.
Evaluation, interface design, technological, pedagogical, institutional, ethical, resource support, management.
Physical infrastructure, intellectual infrastructure, data and telematic services.
Resources, infrastructure, human, strategies, learning, evaluation, support.
Soft ware, hard ware, communicative hard ware, human resources, data and sources.
Technical, legal and cultural infrastructures.
hard ware, soft ware, human ware and network.
Strategically planning, curriculum and content, use of the internet and acceptable use policies, connectivity infrastructure and network, intellectual property and copy right, intergovernmental issues and cost , finance and partnership.
Connectivity and access, capacity building, content and application development, good governance and policy.
Learner, instructor, course, technology, design and environmental dimension.
Online instructional tool and design.

2. Material and Methods

The methodology used in this study involved a combination of descriptive and quantitative research and included the use of correlation, regression and descriptive analysis as data processing methods. The total population for this study was 7950 rural youth in Ilam City and by using Cochran formula, 150 were selected through random sampling method.

Measuring respondent's attitudes towards e learning has been achieved largely though structured questionnaire surveys. The usual questionnaire approach to measure attitude is to include a range of semantic-differential (with good/bad options for example) and Likert items (with agree/disagree options for example) to operationalize the attitude construct. The final questionnaire was divided into several sections. The first section was designed to gather information about personal characteristics of respondents. The second section was designed to measure the attitudes of respondents about the factors influencing the application of e learning. The respondents were asked to indicate their agreements by marking their response on a five point Likert-type scale. The next section explored the barriers on application of e learning items were presented in a 5-point Likert format with responses from 1—completely disagree to 5—completely agree. The variables and their measurement scale are presented in table 2

Table 2: Variables and their measurement scale

Variables	Measurement Scale
Attitudes about Factors Influencing the Application of e learning	Five- point Likert
Barriers about Application of e learning	Five- point Likert
Gender	Categorial
Age	Categorial
Educational Level	Categorial

Content and face validity were established by a panel of experts consisting of faculty members at Islamic Azad University, Science and Research Branch and some specialists in the Ministry of Agriculture. Minor wording and structuring of the instrument were made based on the recommendation of the panel of experts.

A pilot study was conducted with 20 persons who had not been interviewed before the earlier exercise of determining the reliability of the questionnaire for the study. Computed Cronbach's Alpha score was 87.0%, which indicated that the questionnaire was highly reliable.

Key dependent variable in the study included application of e learning which were measured by perception of respondents about 11 statements. The independent variables in this research study were social, economic, cultural, research and educational factors which influences the application of e learning. For measurement of correlation between the independent variables and the dependent variable correlation coefficients have been utilized and include person test of independence.

3. Results

The results of descriptive statistics indicated that 53.3 percent of respondents were male and less than 50 percent were female. Majority of rural youth had high school diploma and slightly more than 31 percent had at least an associate degree. Almost half of youth indicated that they have access to computer.

In order to finding the perception of rural youth about impact of e learning, respondents were asked to express their views. As can be seen (Table 3) the highest mean refers to increasing their motivation to study (mean=3.82) and the lowest mean to having better access to educational materials (mean=2.97).

Table 3: Means of respondents' views about impact of e learning (1=strongly disagree; 5=strongly agree).

Statement	Mean	SD
Increasing their motivation to study	3.82	0.92
Increasing involvement in planning and implementing the projects	3.56	0.88
Improving their knowledge level	3.47	0.93
Providing more opportunities to stay and work in rural areas	3.44	0.90
Helping to reduce the digital divide between urban and rural areas	3.36	0.99
Feeling better about their place residence in rural areas	3.30	0.95
Saving time and cost	3.26	0.83
Increasing their income level	3.17	0.90
Improving job opportunities	3.07	0.109
Having better access to educational materials	2.97	0.120

The perception of respondents about factors which influence the application of e learning by rural youth shows that the highest mean number refers to social factors (mean=3.60) and the lowest mean number was for economic factors (mean=3.45) (Table 4).

Table 4: Means of respondents' views about factors influencing the application of e learning (1=strongly disagree; 5=strongly agree).

Statement	Mean	SD
Social Factors	3.60	0.62
Cultural Factors	3.58	0.67
Research Factors	3.47	0.72
Educational Factors	3.46	0.75
Economic Factors	3.45	0.61

Pearson coefficient was employed for measurement of relationships between the perception of rural youth and factors influencing the application of e learning. Table 5 displays the results which show that there was relationship between perception of respondents and economic, education, research, social and cultural factors.

Table 5: Correlation measures between independent and dependent variable

Independent variables		r	Sig
Education factors		0.633	0.000**
Cultural factors		0.552	0.000**
Social factors	Application of e-learning	0.540	0.000**
Research factors		0.468	0.000**
Economic factors		0.394	0.000**

**$p < 0.01$.

Table 6 shows the result for regression analysis by stepwise method. Independent variables that were significantly related to perception of rural youth about factors that influence the application of e-learning were subjected to regression analysis. The result indicates that 41% of the variance in the perception of respondents could be explained by two variables of education and social factors.

In the first step, the variable education factors was entered and result shows that 39% of variance for perception of rural youth about factors which influence the application of e-learning is accounted by education factors. In the second step, the variable social factors were entered and along with education factors, these two variables accounted for 41% of variance for respondents' perception.

Table 6: Multiple Regression Analysis

Variables	B	Beta	t	Sig.
Constant	1/327	-	6/005	0.000
Education factors (X1)	0.392	0.500	5.703	0.000
Social factors (X2)	0.181	0.191	2.178	0.031

R^2=. 41

Y=0.392(X1) +0.181(X2) +1.327
Y=0.5 (X1) +0.192(X2)

4. Discussions

Based on the findings, social factors are the most important issue. The findings are in accordance with the studies by Sullivan (2002), Samak (2006) and Tyan (2003).

Handling of New technology needs constant maintenance, technical proficiency and training is considered to be a critical aspect in the application of e learning. Many developing countries lack enough skillful experts to train users in new technology. Moreover, continuous training of manpower to adapt them with changing technology is necessary. These often act as constraints before the smooth growth of ICT (Usun, 2004).

Based on the findings, economic factor is considered as one of the most important issues. Developing countries have to ensure that such a technology be accessible to the target group and also fulfills their needs. Such a scenario essentially implies that an advanced technology is not necessarily the best technology. However, developing countries often invest in the latest technologies without considering whether the target audience are effectively reached or are interested in the technology (Usun, 2004).

To achieve the goal of application of e learning, financial, social, human, and organizational sustainability need to be assured over a period of time. Technology options that provide affordable access need to be carefully examined.

Therefore innovative technologies and applications need to be developed that cater specifically to rural areas. The financial burden on developing e learning for rural areas has been mainly on the governments and it is important to help and introduce NGOs and private sector to participate in developing e learning in rural Iran.

The issue is not only the access to technology, but it is equally critical to provide training, tools and guidance to make rural population aware of what technology can do for them, and what they can do with technology.

Corresponding Author:
Dr. Farhad Lashgarara
Department of Agricultural Extension
Science and Research Branch,
Islamic Azad University, Tehran, Iran
E-mail: f_lashgarara@srbiau.ac.ir

References
1. Asian Development Bank. Building e-Community Centres for Rural Development: Report of the Regional Workshop, Bali: Indonesia. 2004.
2. Barajas M , Owen M. Implementing Virtual Learning Environmental: Looking for Holistic Approach. Educ. Tech. and Soc. J, 2006; 3: 20-36.
3. Cantoni, V, Cellario M. and Porta M. Perspective and Challenges in e-Learning: Towards Natural Interaction Paradigms. J. Visual Lang. & Computing. 2004; 15: 335-345.
4. Chenn S. Evaluating the Learning Effectiveness of Using Web-based Instruction: An Individual Differences Approach. Inter. J. of Info. & Comm. Tech. Edu, 2005; 1: 69-82.

5. Crase L. E-learning Opportunities and Challenges. McMaster world congress course by wire Inc. 2004; 1-2.
6. Dirr P. The Changing Faces of Virtual Education. London: The common wealth of learning. 2001.
7. Ebadi R. IT and Education. Tehran: Institute of intellectual schools and educational technology development. 2005.
8. Ho M.S. The Impetus of e-Learning in Enterprise. Master Thesis, National Taiwan University of science and technology. 2002.
9. Iran ICT News. Available at: http//iranictnews.ir. 2008.
10. Kushner J , Chong P. Conducive Environments for Promoting Community e-Centers. Asian Development Bank Regional Workshop. Bali: Indonesia. 2004.
11. Leary J, Berge Z. L. Trends and Challenges of e-Learning in National and International Agricultural Development. Int. J. of Edu. & Dev. Using ICT. 2005; 2: 51-59.
12. Lee J.D, Lee, H. Economic Analysis of Community e-Centers for Rural Development. Asian Development Bank Regional Workshop. Bali: Indonesia. 2004.
13. Rusten E, Ramirez S. Future Direction in Agriculture and Information and Communication Technologies (ICTs) at USAID. Washington D.C.: The Academy for Education Development and Winrock International. 2003.
14. Samak Z.A. An Exploration of Jordanian English Language Teacher's Attitude, Skills and Access as Indicator of ICT Integration in Jordan. PhD dissertation, The Florida State University. 2006.
15. Sribhadung R. A. Mobile Device in e-Learning. Third international conference on e-learning for knowledge-based society Bangkok, Thailand. 35, 1-5. 2006.
16. Sullivan C. Getting the Organization to Adopt e-Learning from Challenge to Action. Technical report printed to Hathworne associate white. 2002.
17. Surry D.W. A Model for Integrating Instructional Technology into Higher Education. University of south Alabama. Proceeding of the American educational research association. 1-33. 2002.
18. Tyan K.J. Diffusion Barriers to e-Learning in Corporate Taiwan: a Factor Analysis of Practitioner's Perspective. PhD dissertation, Indiana University. 2003.
19. Usun S. Factors Affecting the Application of Information and Communication Technologies in Distance Education. Turkish Online J. of Dist. Edu, 1: 1-8. 2004.

02/16/2011