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Study Factors that Influence on Modern Educational Technology Publication in Teachers and Managers' Opinion in Sari

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ABSTRACT

The goal of current research is studying factors that influence on publication of modern educational technology. In this study, descriptive, survey and cross- sectional methods were utilized in 2010. The statistical population consist of 900 teachers and managers in sari that 270 individual were randomly selected as sample. Researcher collected data by questionnaires. The validity was measured by experts' Judgment. The reliability of questionnaires was measured by cronbach Alfa 5/95. Data were analyzed by descriptive, inductive statistic (single- sample t-test and mean ranking testing (freeman)). The results showed that 1) educational 2) economical 3) technological 4) cultural 5) social factors influence on modern education technology publication respectively.

KEYWORDS: modern educational technology, information technology, technical factors, educational factors, cultural factors, strategic factors, economic operating.

1. INTRODUCTION

Current world is the world of development, information and skills transfer. The most complicated problems are descending of education quality, universalized goals of education, concerns about identity maintenance, increased cost, extensive competence, systems development. In this environment. The education decision – making system face problems belong to last decades. And meet the future with plenty of past and present complicated problems and difficulties. And be ready for encounter them. It is impossible because of current decision- making mechanisms. One of the logical and reasonable ways for encounter information and communication revolution is emphasize on education that first must is reinforced people encountering ability and train the people so that and they adapt their acceleration with continues changes. And make them and effective individual for encounter changes by making evolution in insight, knowledge, and theory of individual and increasing social and personal skills. (Ebadi, 2005,p: 12). New evolutions in information and communication technology leads human society into information society and subjects like learning and training are noteworthy as regards time and society needs. Information and communication revolution is very important so that today, we assume a person literacy who skilled in four fields (reading, writing, calculating and information and communication technology knowledge). For training human source , the most extensive association is education that coverage many people in the country and in this condition, this association is disable to train job-creation and master for information society. In spied of knowledge development, there are traditional learning methods in schools. That they can't meet current needs. (Abbasi, 1991, p: 72) in 21th century. Schools should ready students for a world that oriented from information and technology. In such world, the students should have skills and insignias that able them to act and cooperate (zoofon, 2004, p: 56). Publication and development of information and communication technology in education programs are effective paces that can change goals, programs and methods quality and make education effective. It is predicated that developing technology meets old dreams and unsolvable problems such as making education applicable, focus on learner abilities and needs, establish student- centered role and shift teacher role as students guide. And finally emphasized on long life learning (Ebadi, 2005, p: 14). Electronic learning is one of the modern world phenomena that appear in information age and knowledge- based society. The main property of e-learning is its cooperative and communicative property beyond easy across to information.

E-learning provides better ways for processing, making in formation meaningful and recreation what needs these days. Educational methods are changing, traditional schools were replacing by smart and virtual schools along with information and communication technology development and knowledge denitrifying and universalize.

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According to summit declaration for teaching and learning in society, all countries in the world must develop information and communication technology facilities in high school level till 2015(takfa plan). Our country follows this principle and it must be in adaptation with information and communication age. (Zarei, 2005 p: 2).for development and meet the goals, identifying effective factors is a main pace. Factors such as knowing knowledge and skills of information technology under educational system because the main parts of educational reforms are teachers and managers. And there is no fundamental change unless by teachers' believe, consult ion and accompany in public educational system, facilities and financial resources in providing proper educational soft, hard ware, how educational planning fitted with information and communication technology and producing proper educational content and create cultural fundamental and mental accept ion in educational environment because accepting this plan cause extensive disagreement and more persistence without this cultural establishment. So perhaps identifying these factors in plan development is a pace for universal development and synchronization with modern information and communication technology. In this research, above factors have studied teachers and managers' opinions in sari education. Because these people have role more than other social class in applying modern technology, and information and communication technology. Some researches and studies were conducted about it including. Izadi (2007), she studies e-learning extension obstacles and presenting proper applying pattern in high school education. (In teachers and manager's opinion). Results from research indicated that 56 percent of teachers and 68 percent of managers consider technological and technical factor as serious and very serious obstacles and presenting proper applying pattern in high school education. (In teachers and manager's opinion). Results from research indicated that 56 percent of teachers and 68 percent of managers consider technological and technical factors as serious and very serious obstacles for e-learning development. Also 50,14 percent of teachers and 61.1 percent of managers reported social cultural factors, 57 percent of teachers and 68 percent of manager considered educational factors, 58.8 percent of teachers reported official legal factors, 68.8 percent of teachers reported economical factors as serious and very serious obstacle for e-learning in high school. Learning also in 2006, salehi and kashani mentioned proper educational programs applying information and communication technology and communication technology and facilities and financial resource as main elements that influence on implement of smart school plan.

Rezaei rad (2009) showed in his study with title: Effective factors on smart school extension "that technological, educational, cultural, strategically, economical, legal and social factors affect on smart schools extension, respectively. Howard (2008) concluded in his research with title" studying in formation and communication technology foundation and human resource capacity in Liberia" that for extending information and communication technology in that country, it needs to reinforce transmission fundamental, economical, social, human resources and courses according to information technology. Lee Blank and Wendez (2001) categorized factors in three classes that make e-learning successful. Its title is "succeed factors for electronical learning ": organizational, general and cognitive. Organizational factors including: 1- technical subtraction 2. Clear definition of leadership strategy changes 3- supporting management from education. General factors include: 1- adult learning principle 2- clear definition of learning results 3- pre- test option 4- clear definition of evaluation and learning methods.

Cognitive factors include: 1- access to useful educational secondary facilities. 2- Controlling information. 5- Proper utilizing of media 6- avoidance of extra information.

General goal: Identifying factors that impact on publication of modern educational technology in point of view of high school teachers and managers in sari.

Research questions

1- Do educational factors influence on modern educational technology publication?
2- Do cultural factors influence on modern educational technology publication?
3- Do social factors influence on modern educational technology publication?
4- Do economical factors influence on modern educational technology publication?
5- Do technological factors influence on modern educational technology publication?
6- What is the order of impact of quintuple factors on modern educational technology publication in teachers and managers point of view?

RESEARCH METHODS

Regarding current research is studying and presenting publication methods of modern educational technology and it is going to collect teachers and managers point of views.

In this research is applied survey, descriptive methods. Statistical population include 900 teachers and manager in sari schools. That 270 individual were classified randomly selected as samples. For

collecting data, the researcher prepared a questionary with 32 questions in likert scale that it pointed 1 to 10 score so that 10 is the most important (completely agree) and 1 is the least important (completely disagree) and ask respondent to score the question 1 to 10 in attachment – judement of experts were applied for validity and the reliability were measured by 95% kronbach alfa. In this research, the questionnaires were quartered then data was coded and enter into the computer and was analyzed by descriptive statistical methods and inferential testing, ome – sample t-test and Friedman test (mean raking).

Research findings

General hypothesis test is like following:

$$\begin{cases} H_0=\mu-\mu_0 & sig.\geq 0/05 \\ H_1=\mu\neq\mu_0 & sig.< 0/05 \end{cases}$$

Test was conducted by reliability of 95 percent means α=0/05 and calculated t value, degree of freedom df=n-1=269, is compared with critical table t value that equals with 1.98. Ho will reject if it is bigger than. So we can claim by 95 percent reliability that if calculated average is bigger than theorical average, the noted factor will influence on modern educational technology publication in view point of teachers and managers in sari.

First question: Do educational factors influence on modern educational technology publication?

Table1: one- sample T-test for studying educational factors impact

Mean sample	Standard deviation	Society (cut off point)	Mean difference	t	Degree freedem	t	Sig.	Test result
70.20	9.41	50	20.20	35.263	269	1.96	0.000	Reject H_0

According data results from table1. Calculated t value (t=35.263) that measured by 95 percent reliability (α-0/05) and degree freedom df=n.-1=269 is bigger than critical table t value (t=1.96). Therefore it claimed that educational factors influence on modern educational technology publication by 95% reliability.

Second question: Do cultural factors influence on modern educational technology publication?

Table2: one- sample t-test for studying cultural factors impact

Mean sample	Standard deviation	Society (cut off point)	Mean difference	t	Degree freedem	t	Sig.	Test result
27.33	4.15	20	7.33	29.070	269	1.96	0.000	Reject H_0

According data results from table2, calculated value (t=29.07), measured by reliability 95 percent,(α=0/05) and degree of freedom, df=n-1=269 is bigger than critical table t value (t=1.96). Therefore it can claim that cultural factors influence on modern educational technology publication by 95 percent reliability.

Third question: Do social influence on modern educational technology publication?

Table3: one- sample t-test for studying impact of social factors

Mean sample	Standard deviation	Society (cut off point)	Mean difference	t	Degree freedem	t	Sig.	Test result
27.52	4.12	20	7.52	29.988	269	1.96	0.000	Reject H_0

According data results from table3, calculated t value (t=29.988), measured by 95 percent,(α=0/05) and degree of freedom df=n-1=269 is bigger than critical table t value (t=1.96). Therefore it claims that social factors absoultly in fluence on modern educational technology publication by 95 percent reliability.

Fourth question: Do economical factors influence on modern educational technology publication?

Table4: one- sample t-test for studying economic factors impact

Mean sample	Standard deviation	Society (cut off point)	Mean difference	t	Degree freedem	t	Sig.	Test result
51.34	7.08	35	16.34	37.901	269	1.96	0.000	Reject H_0

Explanation: According data results from table4, calculated t value (t=37.901) measured by 95 percent (α=0/05) and degree of freedom df=n-1=269 is bigger than critical table t value (t=1.96). Therefore it

claims that economical factors absolutely influence on modern educational technology publication by 95 percent reliability.

Fifth question: Do technological factors influence on modern educational technology publication?

Table: one- sample t-test for studying technological factors impact.

Mean sample	Standard deviation	Society (cut off point)	Mean difference	t	Degree freedom	t	Sig.	Test result
51.39	7.29	35	16.39	36.917	269	1.96	0.000	Reject H_0

Explanation: According data results from table5, calculated t value (t=36.917) measured by 95 percent reliability (α=0/05) and degree of freedom df=n-1=269 is bigger than critical table t value (t=1.96). Therefore it is claimed that technological factors absolutely influence on modern educational technology publication by 95 percent reliability.

Sixth question: what is the order of impact of quintuple factors on modern educational technology publication in teachers and managers point of view?

H_0=All factors have equal impact

H_1=some factors have unequal impact.

Table 6: mean rating

Factors which influence on modern educational technology publication	Educational	cultural	social	Economical	technology
Mean rating	4.97	1.52	1.48	3.61	3.42

Table 7: fried man test

Statistical index	Number(N)	Chi-square statistic	Degree of freedom(df)	Possibility value(sig)	Test result
Fridman-test values	270	973.204	4	0.000	Reject H_0

According observations from tables 6 and 7 , calculated value for value- P with 95% reliability and degree freedom (df=4) is smaller than meaningful level (α=0/05), (sig=0.0000), so zero hypothesis (H_0) absolutely is rejected by data and research hypothesis is confirmed, means that it is classified influence of factors on modern educational technology descriptively by 95 percent reliability as following: 1) educational factors (4.97), 2) economical factors (3.61), 3) technological factors (3.43), 4) cultural factors (1.52), 5) social factors (1.48).

Conclusion

In this research, five elements are considered as factors that influence on modern educational technology publication which each factor has subdivisions. It is assumed that properties of educational factors cause educational factors to influence on modern educational technology publication so that study indicated that training human resource. In information technology field in scientific centers is a very important index in these schools. Although it costs a lot of money to train skillful human recourse, it eats as a precursor of information technology scientific idea and thoughts experimental and scientific experiments showed that skillful human recourses in needed fields cause success in countries. Teachers are parts of this recourse. In second hypothesis was indicated that in teacher's opinion, cultural factors is one of factors that influence on smart school spread. Results show that although having information technology is one of main tools for technology, it is simpleminded for us to assume these concepts and tools effective without considering mental and cultural elements and balance culture- making in relation to information and communication technology, changing culture of internet utilizing and without cultural official's administration on electronic learning current. It is necessary to know all modern information concepts and tools especially e-learning have concepts values and cultural and mental elements in their performance and function. In third hypothesis, according data collected by teachers and managers opinions, social factors is one of important and effective factor in smart school speared that it requires to create positive thought in relation to information and communication technology in society and providing proper context for learning of information and communication technology scientific skills and considering the importance and place of smart school is not clear yet, it help to creates ways to inform people about e-learning role in learning and teaching process. As effective factor in accepting these

schools among families to send their children to these schools that this factor can speared modern educational technology. In fourth hypothesis, results showed that economical factor is a main factor in supporting of all development in scientific fields, etc in every country. And without this factor, it is impossible to establish substraction or continuing the way without its support. Hence, providing proper access to information and communication technology with low cost (access to internet and computer technology), increasing facilities and financial resources, decreasing primary cost for electronic learning spread among school, financial help to families and teachers for providing electronically equipments, supplying maintains and reserve costs for equipments of schools and especially presenting and investing of private assassinations in e-learning and decreasing economical dependency on foreign producer of hard ware as factors that influence on applying modern technology, and modern educational technology spread can be useful. In fifth hypothesis is indicated that one of factors extremely influence on modern educational technology spread is technological factor in teachers and manages opinion. Considering skilled manpower in utilizing information and communication technology, producing Persian educational software, developing and spreading Persian internet educational technology spread. This research has a some results with Izadi (2007), Salehi and Kashani (2006), Rezaei Rad (2009), Hooword (2008) and Lee blank and wedez' s researches (2001).

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