

Checking the Attitude of Faculty Members in the Application of Modern Educational Technologies and Educational Motivation of Postgraduate Students (Case Study: Islamic Azad University, West Guilan)

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Abstract

This research attempts to present the attitude of faculty members of university who are using this system. So the main research question is checking the attitude of faculty members in the application of modern educational technologies and educational motivation of postgraduate students in the Islamic Azad University in west Guilan. The present research's methodology is consisted of the sectional and correlation method, the field data-collection method and data gathering tools. Population of this study includes faculty members of Islamic Azad University with higher education in Astara, Anzali and Talesh, with the sum of 152 and the sample size was estimated as 109 people. The results of data analysis through SPSS software and the Pearson's correlation test by descriptive and inferential methods, indicates that the hypothesis is verified. That means the attitude of faculty members in the application of modern educational technologies, with the role of mediation in reducing training costs, saving time, learning opportunities academic success, and instant access to information and resources are effective on the postgraduate students' motivation.

Key Words: Vision, Modern Educational Technologies, Educational Motivation.

Introduction

Epistemological foundations of constructivism cause major change in the fundamentals of teaching and learning and consequently in the educational technology (Fardanesh, 1391). Information and communication technology (ICT)¹ by providing access to learning and other educational elements, relevant learning opportunities and experiences, implemented the formation of virtual environments (Razavi, 1392). Higher education in terms of training the specialists in developing the society has a special role. Faculty members as the main forces in performing the obligations of higher education and participation in development and as education trainers and training the specialists of society have a special role. Using the technology in education is one of the important aspects of the development of information and communication technology, and it is counted as the radical changes in social, professional and educational human life of twenty-first century, which opened the new dimensions for educational institutions including schools and universities (Omoiee Milan Ghashghagh and et al., 1390). Universities and institutions of

¹ -Information and Communication Technology

higher education are always looking for the best training methods in the academic affairs to train the students as spontaneous, active, interested and successful and having the satisfactory academic progress (Rastegar and et al, 1392). Academic achievement is one of the main criteria in examining the ability of students in order to finish college and reach the graduation. Identifying the factors that influence the students' progress, creates an appropriate approach for planning and developing and evolution of educational programs, thereby this could enable the best possible results both for the educational institution and for the students too (Sanai nasab and et al., 1391).

Theories of motivation are among the most important issues of organizational behavior which is used to explain the factors of human behavior's direction. From the educational perspective, motivation is structured in multilevel which is associated with learning and academic achievement (Seyed Javadin, 1381). So the main issue in the present study is checking the attitude of faculty members in the application of modern educational technologies and educational motivation of postgraduate students in the Islamic Azad University in west Gilan. This goal is pursued through the following hypotheses:

1. The attitude of faculty members in the application of modern educational technologies, with the role of mediation in reducing training costs which is effective on the postgraduate students' motivation.
2. The attitude of faculty members in the application of modern educational technologies, with the role of mediation in saving time, which is effective on the postgraduate students' motivation.
3. The attitude of faculty members in the application of modern educational technologies, with the role of mediation by increasing the learning opportunities which is effective on the postgraduate students' motivation.
4. The attitude of faculty members in the application of modern educational technologies, with the role of mediation in increasing academic success which is effective on the postgraduate students' motivation.
5. The attitude of faculty members in the application of modern educational technologies, with the role of mediation in instant access to information and resources which are effective on the postgraduate students' motivation.

Theoretical Foundations and Literature Review

The emergence of new theories of learning and teaching, paradigm shift from teacher-centered to learner-centered, and also the development of new communication tools provide the background for the modern age man to freed himself from the spatial and temporal barriers, by using the modern methods of teaching and learning, the modern age man in anywhere and any place can learn considering his own needs and demands. Since e-learning environments are independent of time and location, students' assessment and evaluation and their attitude to such environments is also a challenging problem (Pavlov and Pratt, translated by Salehi and Safavi – (1388)).

Attitude:

Smith and et al. (1956), attitude is the readiness to experiment and is the motivation in order to take action toward the classification of objects in a predictable manner. Also the attitude is basically the method of preparation toward the agreement or disagreement with things. Attitudes are not relevant to the past nor primarily to the present time, but as a rule, that is relevant to the future (Marfi, 1931). According to Thomas (1971) multidimensional concept of attitude which is consisted of the cognitive, affective, and behavioral factors, is the most widely accepted concept for definition of the attitude. In this way, attitude reflects the impact of cognitive and affective, which is remaining in the personal experience of things or social issue about the attitude and also is the willingness for responding to them. Attitude, in this sense is the 'secret mechanism' which leads the behavior (Karimi, 1390).

Motive and Motivation:

Attitude is defined as required or under the special requests which leads to motivation. Russell, (1971) says in this regard: motivation is used to specify the intention or efficiency of the desired behavior. Motivation as a psychological fitness is considered as a prerequisite for learning and its impact on learning is clear (Saif, 1392). Learners' motivation is one of the most effective and the most reasonable factor in the performance of educational programs (Keller, 1983). Another theory regarding the motivation which has an important position in educational psychology is the achievement motivation theory or need to progress. The responsible authors of the achievement motivation theory are Mac Kolland, Atkinson, Clerk, and Lowell (1953).

Modern Educational Technologies:

Educational technologies were seriously entered to the field of education and training activities in the year of 1969. Educational technology is the systematic use and systematic strategies and the techniques derived from concepts and other physical sciences and behavioral sciences (Gentry, 1991). Silverman offered two concept of educational technology: 1) educational technologies is relative which relies on methods, and the tools; 2) Educational technology is the structure which focuses on the analysis of educational issues, production and selecting the evaluation tools, and the means of production, in the terms of achieving the desired outcomes of education (Zofan, 1392).

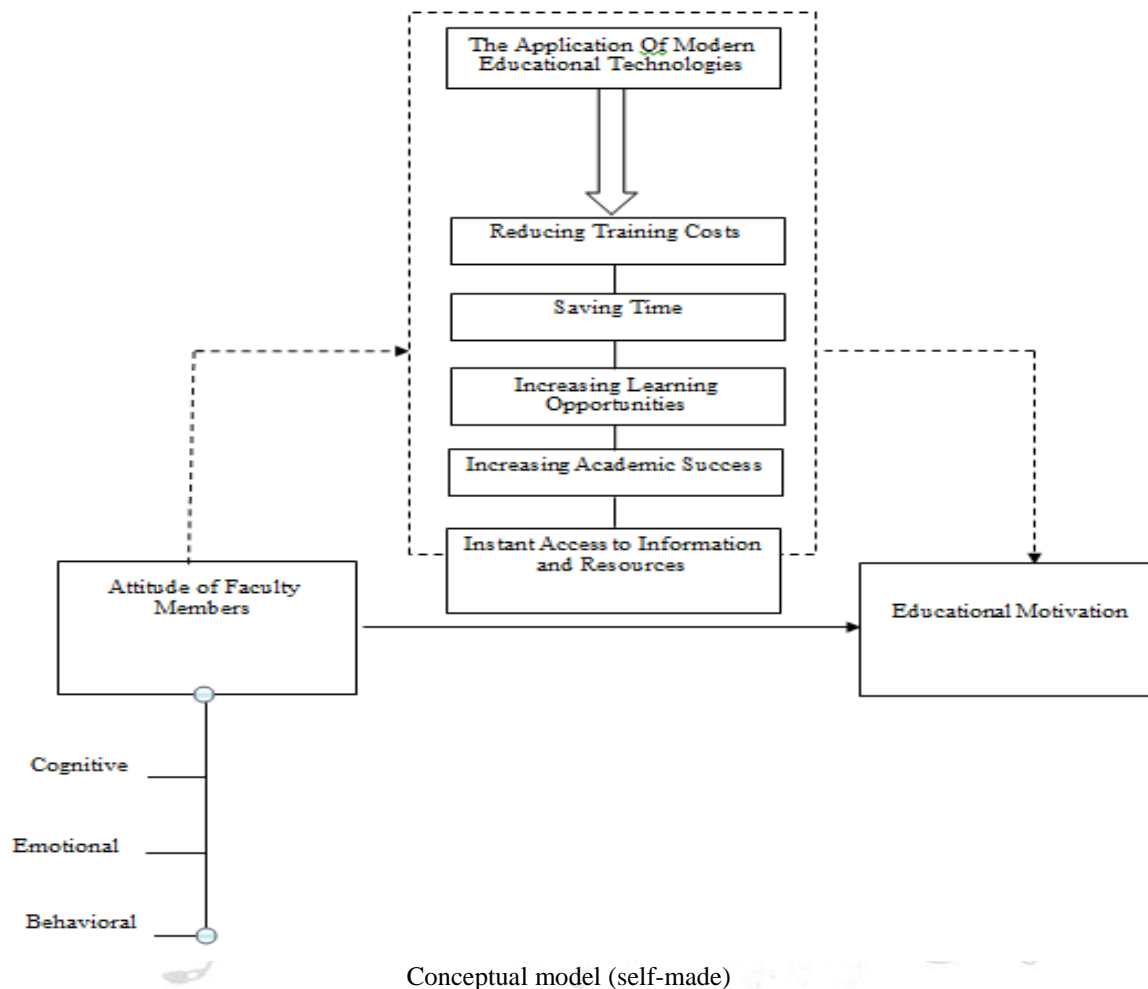
For a teacher in the twenty-first century, obtaining a deeper understanding of the impact of technology on education is important. The present question in this research is that to which extent technology does affect the students' motivation (Linnebrink and Pintrich 2003.). Checking the background subject of the study indicates that, few studies have been done on the impact of the attitude of faculty members in the application of modern educational technologies and evaluating the educational motivation on postgraduate students. In the following, some of the studies in this context are mentioned:

Dr. Mir Ali Seyed Naqavi (1384) carried out a study entitled 'attitudes of teachers and students to learning, a survey in universities with e-learning in Iran'. After analyzing the data, it was found that teachers have a positive attitude toward the e-learning as a teaching tool. Based on students' attitude factors such as independence, faculty guidance and multimedia learning are the most important affecting variables on their attitudes on the effectiveness of e-learning system.

Roberts (2008), worked on the study entitled as factors affecting the use of educational technologies and the result was that some of the personal factors, such as the inability or weakness of faculty in using the educational technologies, some fear the higher ability of students in comparison with themselves, being comfortable with traditional teaching methods, and etc., these factors are important in the quantity and quality in using the educational technologies.

Maknat, Philips, Rossiter, Vien (2000) in a study investigate the factors influencing the use of educational technologies in the universities of Australia. This study identified some factors that influenced using the educational technologies. Based on its results, three factors, organizational culture, organizational policies and foundation were effective in this area.

Fahami and Zare (1391) conducted a study entitled 'Factors affecting the adoption of new technologies in distance education using the technology acceptance model in PNU university'. The results shows the subjective perception of usefulness and ease of using the new technologies by authorities through distance learning, and there is a meaningful relation with their attitude toward this technology.



Conceptual model (self-made)

Research Methodology

The present study in the objective term is applied and in terms of method is cross-correlation. Population of this study includes faculty members of Islamic Azad University with higher education in west Gilan, with the sum of 152 people. Random sampling method was used to select the sample. Also the sample size was estimated as 109 people. In this study, the data collection tools were carried out by a questionnaire. The validity of the content in this questionnaire has been approved by the supervisor and it is reliable. In the general case and on each of these variables, the level of reliability in the research questionnaire is shown in table 1. In the statements five-point Likert scale (strongly disagree to strongly agree) is used.

Table 1 - Cronbach alpha's estimation

Variable	Cronbach's alpha
the application of modern educational technologies	0.573
reducing training costs	0.598
learning opportunities	0.556
saving time	0.669
academic success	0.591
instant access to information and resources	0.643
The total questionnaire	0.876

For extracting and analyzing data the SPSS software has been used. In the descriptive analysis the frequency distribution is used and to test the hypotheses of research, the correlation and regression analysis are used.

The Findings

Considering the frequency tables and the obtained percentages in the descriptive statistics and analyzing each one individually, it can be concluded that the majority outputs of the questionnaire were between 40 and 60 percent in the tolerance of strongly agree. And in order to normalize the data the Kolmogorov–Smirnov test in table (2) was measured. As observed the level of statistics in Kolmogorov–Smirnov is less than the value of 1/96. In other words, the distribution of this sample is normal.

Table 2- table of the normal data

		application of modern educational technologies	training costs	saving time	learning opportunities	academic success	instant access to information and resources
number		80	80	80	80	80	80
average		4.3828	4.4000	4.4862	4.3063	4.3787	4.4450
Standard deviation		0.37911	0.45284	0.38410	0.45013	0.42405	0.42810
The maximum difference	Absolute	0.154	0.200	0.149	0.120	0.141	0.166
	positive	0.079	0.199	0.091	0.062	0.071	0.097
	negative	-0.154	-2.000	-0.149	-0.120	-0.141	-0.166
Kolmogorov-scale	Smirnov	1.380	1.788	1.329	1.073	1.258	1.488
Significance level		0.044	0.003	0.059	0.200	0.084	0.024

Due to the fact that the scale which is used in this study is the distance scale, therefore in order to test the research hypotheses and measuring the correlation between variables, the Pearson's correlation test by applying the software of SPSS 21, was used. Correlation coefficient existed between the variables, and the results is been shown in the table (3):

Table 3- correlation analysis

	Mediation in reducing training costs	Mediation in saving time	Mediation in increasing the learning opportunities	Mediation in increasing academic success	The role of mediation in instant access to information and resources
attitude of faculty members in the application of modern educational technologies	.433**	503**	.391**	.422**	.477**

Also in order to determine the significance, Friedman test in the table (4) has been identified. The result of this test with the sum of Chi-Square =18/116 in the level of 0/95 was assured, it means that the level of 0/5 percent error (0/003 =Asymp.sig) is significant.

Table 4- the significance of Friedman test

Dimension	Description
Number	80
Chi-Square	18.116
Degrees of freedom	79
Asymp.sig	0.003

Conclusions and Recommendations

The overall goal of this research is checking the attitude of faculty members in the application of modern educational technologies and educational motivation of postgraduate students in the Islamic Azad University in west Guilan which was evaluated with five hypotheses. Correlation analysis and the regression equations revealed that the attitude of faculty members in the application of modern educational technologies, with the role of mediation in reducing training costs, saving time, learning opportunities academic success, and instant access to information and resources are effective on the postgraduate students' motivation. The research findings indicate that the application of modern educational technologies could have positive effects on education and educational motivation, as following:

- 1- Reducing limits of learning and promoting equality of opportunities.
- 2- Possibility of facilitating public access to learning opportunities with the good quality and reasonable price.
- 3- The possibility of removing limits due to time of learning (during the day and in the all times of the year), learning duration (during the academic period), the possibility of learning (effective and organized learning can take place anywhere) and the distance between the learner and learning resources, including professor.
- 4- The possibility of reducing the cost of access to the rare information and its required high costs, in the specialized training and researches.
- 5- Improving the quality of learning, granting responsibility to student's learning and establishing a coherent and coordinate and comprehensive system in order to provide educational services for students at any time and place to suit his needs as he requested.
- 6- Increases in the proportion of students in the learning process and his further participation in this regard which leads to higher levels of learning.

Also according to frequency tables and the obtained percentages in the descriptive statistics by analyzing each separately, it can be concluded that the majority outputs of the questionnaire were between 40 and 60 percent in the tolerance of strongly agree, that the highest percentages included the academic success and instant access to information and resources. Therefore it can be concluded that all respondents in some ways agree that the application of technology is set to grow and will motivate the students' performance.

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