

Research Article

The Study of Students' Attitudes towards the Use of Internet in Education (Case Study: Kermanshah Azad University)

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Abstract

Introduction: Today, The use of the Internet in the university is a major issue. The purpose of this study was the study of students' attitudes towards the use of internet in education at Azad University Graduate Students in Kermanshah.

Methods: The current research study done by a surveying method is a type of applied, descriptive and correlation research. The statistical population was the graduate students in Azad University of Kermanshah (N=996). Of those students 269 were selected based on the Morgan's Table and a stratified sampling method. The researchers tool was a questionnaire structured into five parts: the first part included the demographic features of the respondents as the independent variables; the second part was the dependent variable section which included 20 questions about the students' attitudes in regards to the use of internet, other sections included the students' attitudes regarding internet as an instructional tool (4 question), internet as a research tool (8 questions), and internet as a communication tool (8 questions). The questionnaire's questions were validated by the experts' reviewing from both Azad University of Kermanshah and Bu Ali Sina University. The Cronbach's alpha coefficient was used to assess the reliability of the questionnaire and it was 87 percent. In addition, Mann-Whitney, Kruskal-Wallis, and Spearman correlation coefficient were used to analyze the data ($P=0.05$). Also it used SPSS software (Version19) for analysis.

Results: The results showed that the students have suitable attitudes towards the use of the Internet in education. The findings of the Mann-Whitney test showed no significant difference between students who use computers and those who do not use personal computers. The Spearman correlation coefficient showed a significant correlation between Internet use and students' attitudes. In addition, a significant correlation was observed between the Internet as a source of research ($rs=0.164$, $P=0.036$) and communication recourse ($rs= 0.717$, $P= 0.000$) with students' attitude.

Conclusion: In general, it was found that students have a positive attitude towards the use of Internet in education, however a slightly lower positive attitude about the use of the Internet in education to use in research activities and communication tools.

Keywords

Attitude, teaching, internet, application, training

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Introduction

One of the important characteristics of today's life is the dependency on information and communication technology that has revolutionized the era. In today's world, information and communication technology has influenced teaching and learning methods such that they are catered to students' current educational needs, and eliminated past limitations [1]. In this regard the use of internet can be mentioned [2]. Globally the effective role of information and communication technology in educational achievements has been realized [3]. Therefore, the universities and educational centers have invested heavily to promote the use of internet. Internet based education means to apply electronic environments available for the students for a better learning experience. In the traditional educational system it is assumed that the students are empty of knowledge and information, and that the teachers' role is to transfer the information to the students' mind. In this view, education is non-applied and does not suitable for market [4].

This issue illustrated the disadvantage of the current or traditional education system. In the past, internet based learning was targeted more towards students who did not have access to educational centers. Initially tools such as radios, TV's, videos or voice conferences were used, and computers and software were slowly assimilated, and with their arrival changing the nature of education [5]. In this method, teachers have more time to teach the students [6]. This technology has the ability to stimulate the learning of knowledge and skills among the students through fast and costless access to scientific information and resources. Accordingly, internet is an effective and strong tool in teaching and learning. Furthermore, the use of computers and internet as educational tools has great potential to increase the quality of educational programs and can help define the internet as one of the strongest tools in learning and teaching [7]. In among users, the students are the important users that can be able to search papers, find information and resources by connecting [8]. On this basis, learning through internet can be led to desirable and acceptable achievements in most fields worldwide [9]. In the mid 1990s when the internet was gaining attention worldwide, people's attitude towards the internet was a topic of interest for many researchers [10]. People's attitudes, as a key concept, have been studied with great interest by researchers, however [11] the study of people's attitudes and behaviors in regards to the use of the internet is still in its beginning stages [12]. A review of current research literature has shown that up till now research conducted on the internet has been more focused on its applications for business, education, and never pay attention to time and Internet use [13]. The users' attitudes play a very important role in stimulating greater usage of internet and better education and learning through access to scientific information.

On the other hand, the universities are trying to increase the different internet possibilities at departments, libraries, PC pools in order to be available to a wider range of students'. On this basis, students have been greatly accepting and are willing to increase their use of the internet. Recent studies have shown that attitudes towards the internet can be one of the most important factors in determining the success of students in learning environments. For example, a research conducted by Rezaeikashani [13] showed that 95.7 % of the faculty members use internet daily and more than half of them are satisfied from the services it provides. In another study in relation to e-learning, the results revealed that using internet as an educational tool not only decreases educational costs, but also provided greater flexibility in time and location of learning, the overall quality of education [12].

Heysung in his research on factors affecting the adoption of information technology by educators showed a significant relationship between the educators' attitudes and their adoption of information technology. In other research related to internet and learning, it was found that the most important goal of the trainers use of internet is access to scarce information which is not found by other methods [14]. A study showed no significant relationship between variables such as: gender, educational field, age and experience of the educators and the amount of information technology they employed [15]. Baradaran, [16] in his study revealed that the amount of internet use by students has a relatively positive effect on their research publications. His result also showed a significant relationship between the educational field, educational level, English language proficiency, possession of a PC, job status and the amount of internet usage. A research conducted by Liaw and the colleagues [17] about learners and trainers' attitude towards e-learning showed that the trainers had a very positive attitude towards e-learning in their teaching. Wang also in her study showed a positive and significant relationship between the educators' attitude towards use of internet in education [18]. Inman [19] indicated that students were willing to participate in an e-learning class again, but that the quality of the courses was rated equal to or lower than that of other classes taught on campus. On the other hand, students were highly satisfied with these instructors and the courses. Isleem [20] illustrated that educator in the field of technology were skilled in general computer knowledge, such as the use of word processing, e-mail, Internet, and classroom management. Strong positive correlation existed between the level of computer use and teachers' perceived expertise and attitude toward computers as tools. In addition, moderate positive correlation existed between the level of use of computers and teachers' perceived access to computers. In a study it was suggested that owning a computer and having Internet access at home might have an impact on students' attitudes toward Internet use [21].

Efatnejad concluded that Students use information technology to the highest potential in activities related to research, writing and translating articles [22]. Al-Motrif showed that educational level, age, place of residence and personal beliefs about the Internet are important factors in the use of the Internet, in addition to, the influence of the Internet, such as methods of teaching and learning, curriculum and access to the computer [23]. Also, in a study of analysis of learners' attitudes toward e-learning in Science Education- applied in agriculture, Mohammadi and et al indicated that there are many determining factors such as changes in Information Technology, increasing number of students enrolling in pursue of education that attracts attentions to E-learning. And the variables of: age, use of computer, use of internet, research competency in internet, electronic communication competency, explained the whole variations in the overall attitudes toward e-learning. Therefore, according to the mentioned studies the theoretical framework of this study was formed on the basis of the internet's impact as an educational, research and communication resource on both learning and teaching activities of the students. The main aim of this study was to identify the undergraduate students' attitude of Azad University of Kermanshah toward using internet in education. To achieve this purpose the following objectives were drawn:

1. Reviewing the relationship between attitudes towards using internet in learning and the demographic variables.
2. Describing the use of internet as a communicative, research and educational source by undergraduate students,

3. Calculating the amount of internet usage by the students,
4. Identifying effects of personal and vocational characteristics of the students on their attitudes towards use of internet in learning,
5. Testing the correlations between the independent variables and the students' attitudes towards use of internet in learning

Methods

The current research study that has been done by a surveying method is a type of applied, descriptive and correlation research. The statistical population was the graduate students in Azad University of Kermanshah ($N=996$). Of those students 269 were selected based on the Morgan's Table and a stratified sampling method. In stratified sampling each category is grouped into homogenous groups in terms of the variable's trait in order to decrease the inter-group variations. Following this, a number of samples were randomly selected from each category. For the classification of each population's category usually a variable is considered as the criterion which relates to the variable's trait. In stratified sampling, the sample size was calculated by dividing each sample into every category, while in the class-based sampling method the ratio of the current number of samples into the each category was determined.

The researchers tool was a questionnaire structured into five parts: the first part included the demographic features of the respondents as the independent variables; the second part was the dependent variable and consisted of 20 questions about the students' attitude in regard to use of internet, the other sections included questions about the students' attitude regarding internet as an instructional tool (4 question), internet as a research tool (8 questions), internet as a communication tool (8 questions).

In order to assess the students' attitudes a Likert's type questions in five point (1= strongly disagree, 2= disagree, 3= no idea, 4= agree, 5= strongly agree) was used. The questionnaire's questions were validated by the experts' reviewing from both Azad University of Kermanshah and Bu Ali Sina University. The Cronbach's alpha coefficient was used to assess the reliability of the questionnaire and it was 87 percent. In addition, Mann-Whitney, Kruskal-Wallis, and Spearman correlation coefficient were used to analyze the data. Regarding the research's morality, all the participants were informed about the research process as well as the security of their information so that their names were not shown in the questionnaire. It should be noted that the two important criteria for the selection of the participants in this study were to be familiar with the internet use and being a graduate student of Islamic Azad University in Kermansha.

Results

The individual information about the students at the M.A level who participated in this study has been summarized in Table 1 by distribution of frequency. The majority of students were female (52%) and men (48%). The respondents' age ranged from 24 to 27(50%) of the students in the sample ($n=269$) was from the Azad university (Kermanshah City, Kermanshah Province). The results indicated that 13% of students are Geography and Urban Planning, 14% Business Management, 17% Education and training, 15% Private law, 19% Applied Mathematics and 21% of them Agricultural Plant Breeding Engineering. The students were asked whether they have personal computer. The results indicated that 202 students have it and only 67 of them do not have personal computer.

As far as 29.36 % of students worked with internet (Between 1to 7 years) and 16% of them worked with internet less than 7 years. Also it was reported that 47.58% of students use university website for doing research and 26.3% use it at home. In addition to it was found that the students' familiarity with the Internet is high level (74%).

Table1: Students' individual information

Individual characteristics	Group	F	%
Age	High (24 years) years)Between (24 to 27 (years)Lower than 27	100 135 34	37 50 13
			100
Total			100
Gender	Female	140	52
	male	129	48
Total			100
Major	Geography and Urban Planning	35	13
	Business Management	36	14
	Education and training	46	17
	Private law	42	15
	Applied Mathematics	53	19
	Agricultural Plant Breeding Engineering	57	21
Total			100
Have personal computer	Yes	202	75
	No	67	25
Total			100
History of the Internet	More than 4 years	147	54.64
	Between 1 to 7 years	79	29.63
	Less than 7 years	43	16
Total			100
Location of Internet use	Internet cafe	70	26
	University website	128	48
	House	71	26
Total			100
E-mail inbox	Yes	269	100
	No	-	-
Basic familiarity with the Internet	High	200	74
	Moderate	59	23
	Low	10	3
Total			100

Attitude regarding the use of the Internet in education: As shown in Table 2, attitudes for use of internet in education, as ranked by students, was reported to be positive. In this study, for ranked statements of attitude, a coefficient of variation was used. The ranking shows, in order to reduce the cost of education (Mean=3.95), flexible time and learning space (Mean= 3.90), as well as attention (Mean=3.86) are important. In regard to these results, the statement "Internet is not tired" has the least important (Mean=3.26).

Table2: Mean, standard deviation and percent coefficient of variation

Statement	M	SD	CV	Ranking
Reduce financial costs	3.95	1.01	25.56	1
Flexibility, time and place of learning	3.90	1.07	27.53	2
Attention	3.86	1.07	27.72	3
Access to information	3.79	1.01	29.02	5
Improvement in the use of internet	3.75	1.01	29.33	6
New information	3.73	1.15	30.83	7
Increasing social communication	3.64	1.14	31.31	8
Improving English language	3.52	1.22	34.65	9
Speed access to information	3.54	1.24	35.02	10
Reviewing educational materials	3.33	1.20	36.03	11
No need class	3.42	1.24	36.25	12
No fatigue	3.43	1.26	36.73	13
Improve the learning environment	3.39	1.24	36.57	14
Chatting	3.41	1.26	36.95	15
Increased interest and motivation	3.30	1.28	38.78	16
Learning experience	3.27	1.30	39.75	17
Increased interaction between the learner and learning materials	3.36	1.35	40.17	18
No need book	3.25	1.34	41.23	19
Lack of teacher fatigue	3.26	1.36	41.74	20
Increasing the quality of education	3.26	1.36	41.74	21

Time to use the Internet for educational activities, research and communication: As shown in table 3, between 3 to 7 hours a week, students used the internet for doing research, educational activities and communication (53.9, 44 and 68.40%).

Table 3: Internet use in education, research and communications

Activities Time	Education		Research		Communications	
	F	%	F	%	F	%
More than 3 hours	65	24.16	110	40	87	32.34
Between 3to 7hours	184	68.40	120	44	145	53.9
Less than 3 hours	20	7	39	14	37	13.7

The role of the Internet as a source of research: Table 4 shows three statements that are very important, such as the download of articles (Mean=3.95; SD= 1), familiar to professional journals (Mean= 3.67; SD= 1.08) and receive information from electronic libraries (Mean=3.42; SD= 1.30). Also, the results show that students do not receive information from scientists by internet (Mean= 3.27; SD= 1.36).

Table 4: Use the Internet for research

Research Activity	M	SD	CV	Ranking
Download Articles	3.94	1	25.31	1
Familiar to professional journals	3.67	1.08	29.42	2
Receive information from electronic libraries	3.42	1.30	35.42	3
Become familiar with search engines	3.34	1.17	35.02	4
A specialized news	3.37	1.21	35.90	5
Get Research Results	3.38	1.20	38.5	6
Production of scientific works	3.40	1.31	38.52	7
Information from science professionals	3.27	1.36	41.59	8

The role of the Internet as an educational resource: The results indicated that students tend to get additional information for courses through the Internet. For example "Get information related to courses"(Mean= 3.75; SD= 1.16) was very important. But "Participate in group discussions online"(Mean= 3.29; SD= 1.4) was not important.

Table 5: Using the Internet as a teaching resource

Training	M	SD	CV	Ranking
Get information related to courses	3.75	1.16	30.93	1
Difficult learning lessons	3.29	1.2	36.47	2
Participate in the online exams	3.28	1.3	39.63	3
Participate in group discussions online	3.29	1.4	42.55	4

The role of the Internet as a communication factor: Table 6 shows eight items that were listed by students. These findings indicated that most of the students used internet as a tool to chat with their friends (Mean= 3.66; SD= 1.17). And also students stated, they did not participate in discussion groups via social networks (Mean= 3.34; SD= 1.32).

Table 6: Using the Internet for communication activities

Communication Activities	M	SD	CV	Ranking
Communicate via chat	3.66	1.17	31.96	1
Group chat	3.61	1.24	34.34	2
Connect with people who share common interests	3.53	1.22	34.56	3
Contact with families	3.51	1.22	34.75	4
Communicating audio	3.38	1.19	35.20	5
Participate in video conference	3.36	1.30	38.69	6
Send and receive messages via E-mail	3.48	1.35	38.75	7
Participate in discussion groups via social networks	3.34	1.32	39.52	8

The effect of individual variables on student attitudes toward internet use in teaching and learning: In this study, in order assess the students' attitude towards the use of internet, effects of variables such as gender, owning a personal computer and e-mail were analyzed. Table 7demonstrates that there was not any significant difference between students' attitude ($P= 0.851$). Also, the result shown that there was not significant difference among some of students who did not have e-mails ($P=0.459$). But, there was significant difference ($P= 0.049$) between students' attitude and using the internet in education, because it had positive attitude if they had personal computer.

Table 7: Students' views on using internet in education

Individual		Rating Average	Z	Man-Whitney	P-value
Gender	female	75.06	0.181-	2674.3	0.851
	male	74.2			
Personal computer	Yes	77.95	1.99*-	1695	0.049
	No	62.80			
E-mail	Yes	71.37	0.767	2318.6	0.459
	No	76.68			

$P \leq 0.05$

Furthermore, the analysis shows that there was no significant difference between the location of internet use and the students' major with the attitudes toward internet use in training and education (Table 8).

Table 8: Kruskal-Wallis test results

Major	Rating Average	Kruskal-Wallis	P-value
Geography and Planning	94.99		
Business Management	72.69		
Education	87.20	8.886	0.186
Private law	75.65		
Applied Mathematics	63.69		
Agricultural Plant Breeding Engineering	63.77		
Location of Internet use	Rating Average	Kruskal-Wallis	P-value
Internet cafe	59.4		
University	61.34	0.886	0.654
Home	63.04		

The correlation between the variables: In this study, we used Spearman correlation for students' attitude and research variables. The finding indicated there was correlation between students' attitudes and research of resources ($rs= 0.546$; $P= 0.000$). In addition there were correlations between students' attitudes with communication and educational resources respectively ($rs= 0.717$ $P= 0.000$; $rs=0.164$, $P= 0.036$). In other words, their attitude towards the use of the Internet increases, if students use the Internet a lot. But in this study, students' attitude toward the use of the Internet in education is low. This is to determine the extent of correlation between the intensity values. The correlation between the severity of the Internet as a source of learning and changing their attitude towards online learning is weak but the correlation between the severity of the Internet as a source of students' attitudes toward online learning is high (Table 9).

Table 9: The correlation between variables and attitude

Variables	Test	P-value	Correlation***
Educational resources	0.164*	0.036	Weak(0.1-0.29)
Research of resources	0.546**	0.000	Moderate(0.30-0.49)
Communication resources	0.717**	0.000	High(0.50-0.69)

P≤ 0.01 P≤ 0.05

Conclusion

Today, the influence of technology on our lives is significant. These changes in the process of teaching and learning have opened a new world of learning. The Internet has many effects on different aspects of learning such that fewer and fewer educators and students show interest in using classical methods. Accordingly, the main objective of this study was to evaluate the attitudes of graduate students at Azad University of Kermanshah in relation to the use of the Internet in education. This study, found that students have a positive attitude towards the use of the Internet in teaching and learning. These findings are consistent with studies conducted by Mohammadi et al [24], Yaghoubi and et al. [25] and Isleem [20]. The researchers found that students have a positive attitude towards the use of the Internet in part due to the reduced financial costs, and flexibility in time and space. These two findings overlap with the

results of Yesazadeh [26] and Karimi and colleagues [27]. They found that use of the Internet helps to reduce the cost of spacing and time. Another finding of the study showed that students use Internet from 3 to 7 hours. In addition, the majority of students use the university's website for online activity. This finding is consistent with Karimi [28]. The results showed that students use the Internet for specific information on training activities in specialized subjects. But, research Naimi and colleagues [29] states that students use the Internet to do homework. These findings contrast with the results of the study Nematiet al., Lubans [30] and Baradaran [21] concluded that the average level of students use of the Internet for research activities, which are consistent with the results of these experiment. On the other hand, the results of a comparative study showed that the personal computer is a positive factor in students' attitudes. This means that having a personal computer helps students to learn. This finding is consistent with the Atarodiet al [31] and Al-Motrif [23]. Other findings in this study included gender and its effect on attitudes to the Internet. The results showed that male and female students have the same attitude to the use of the Internet in education, which were consistent with the results of Mohammadi et al [24] and Karimi and Mokhtarnia [27]. It appears that the expansion of the Internet contributed to the changed attitudes of men and women. The findings of the present study were to investigate the attitudes of those students who have e-mails and do not have e-mails, respectively. The results of this study showed that there is no significant difference in this case. These findings were consistent with the results Naimi and colleagues [29]. The study also found that there is no relationship between the major and students' attitude to use the Internet. The results obtained are consistent with studies Naimiet al [29] and Karimi and Mokhtarnia [27]. They show that the major cannot have role in the attitude towards using the Internet. Also, there was no significant difference between the use of the Internet and the students' attitude to the Internet. This finding is confirmed, according to Naimi and colleagues [29]. Other objectives were examined, the study among variables using the Internet as a source of education, relationships with friends and study their attitude about the use of the Internet in education. The study showed there is a significant correlation between these factors. Therefore increased, student use of the Internet for education and research, and communication. This shows that students have a positive attitude about the use of the Internet in education. Therefore, these variables are effective on students' attitudes. If the correlation is high, it increases the influence of variables on students' attitude. Holecombe showed that educational and research activities are effective in the use of the Internet [32]. However, the Heysung showed no clear connection between educational and research activities with attitude [14]. Overall, the survey results have practical implications. Universities must provide the facilities and Internet access for students. And establish several classes for students' familiarity with the role and impact of Internet in education Shieh et al [33] showed improved attitudes of students when students participate in training classes on how to use the Internet. On the other hand, the experience of working with computers to help students to increase their confidence in the Internet. The results obtained are consistent with the study of Williams and colleagues [34].

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