On Payam Noor University Students' Attitudesto Electronic Tests for Optimization in 2016 (Case Study: Saghez PNU)

Mahvash Janmardi
Department of Sociology, PNU, Iran

Abstract

The current research was aimed to investigate the Payam Noor University students' attitudes on electronic tests. The statistical population consisted of PNU students, Saghez branch, and based on the Cochran formula, the number of 225 students taking electronic tests was selected as the sample size. Tool for collecting data was a researcher made questionnaire. To measure the validity of the questionnaire, its content validity and reliability were investigated by using the Cronbach's alpha of 92%. Data were analyzed at two descriptive and inferential levels. According to the research findings, descriptive findings indicate a highpercentage ofwomen, the singles, unemployed, locals and the age group of the young at the Payame Noor University, while the inferential statistics suggest that most statistical population had a positive tendency to electronic tests, and such variables as gender, marriage status, academic department, electronic skill and qualityofthe test tool were found to besignificantly related with students' attitudes.

Keywords: *electronic tests, end term. Saghez, PNU*

I. INTRODUCTION

The modern world is experiencing impressive developments and some rapid dynamism. A depiction of clear future horizons and awareness of developmenttrends to achieve the best techniques and decision making processes along with the increasing trend of changes in thesociety can be seen a basic step for the empowerment of each society at both micro and macro levels. In a society full of instability and uncertainty, the only approach or policy that can entail the likelihood of success is one of making efforts for materialization of a scientificallyauthoritative future in the world arena. Though efforts have also beenaccompanied by numerous risk taking, the identification of perils is far more rational than just standing by and looking at theimbalances and challenges ahead.

The expansion of ICT and the penetration of communicative tools into the society have also transformed educational tools. Education tools have been developed in such a way that theindividual can engage in learning anytimeanywhere and within any certaintime interval. "The emergence of expanded communicationnetworks, including the internet, along with educational facilities and the ever expansion of advanced IT or developments of educational methods have covered a large group of people seeking knowledge" (Jokar et al. 2007). A scientific evaluation as one of the key parameters involved in the academic scientific structures has also taken advantage of ICT developments. Evaluating students as one of the most important academic education pillars and major aspects playsa role in the educationalactivities, because this allows us to take steps to create developments and to form a scientific system based on the results while understanding weaknesses and strengthens andstrengthening positive aspects.

The emergence of electronic test as a subset of distance learning sets the stage for the expanding learner-oriented education and other changes to the educational procedures. A reduction in educationally incurred costs, production of on time educational content, integrity of discussions, flexible accessibility and easiness can be known as the privileges of this method (Engelbrecht, 2005). Given the benefits of virtual education at the higher education level, demands for holding virtual educational courses within the academiceducationalcourses are on the rise (Zameer, 2010).

The Payame Noor University, by applying a distance learning method, including the internet, expansion of communication networks, promotion of virtual scientific networks, scientific Information Banks and scientific and research services, has introduced immense developments within the higher education. It has also covered a large number of students in different corners of the country as it has developed advanced educational tools and facilities. This university students, without the need to physically participate in classes, will not have problems learning knowledge as the PNU holds end term tests in an electronic form. This method incurs no temporal and spatial restrictions on the students. Given the university's policy in making the scientific system electronic, the current traditional tests do not account for the rapid and immense movement of the caravan of science and knowledge as well as constant changes, and due to the immense volume of examination lessons at different times for offering educational services, the development of tests and the

way they are held assume importance. Providing a comprehensive picture of the PNU students' scientific profile requires an elaboration of scientific structures from a conceptual and substantivestanding and a scientific evaluation of the basic tools in this connection, because the identification of developments and opportunities suggests an optimal perspective for the scientific structure. That the evaluation of students' academic progress contributes to the qualitative promotion of the university, officials have thus been encouraged to develop modern standards to measure the students' progress of knowledge and skills (Gullickson, 2005).Given the expansion and diversity of educational capacity of the country with the help of ICT and accountability to the needs of the today and tomorrow's society for promoting the quality and more flexibility and little cost in offering education (Safavi, Bavaghar and Ghaffari, 2008), it is now highly important to make end term tests electronic in the PNU, because a large part of students are now admitted to this university.

Since PNU is a virtual university, holdingelectronic tests in recent years can be considered a step forward consistent with the inherent andbasic objectives and increased quality of this university. Traditional ways of holding end term tests in the current time does motaccount for the large caravans of term tests at PNU, because the increasing trend of the branches and diversity of studentsacross the country for receiving scientific and educationalcontent and services requires all tests and examinations to be electronic. Thus, it is evident to pay attention to the pivotal role of students in theeducationalsystems as their attitude to electronic tests appears to be significant. Electronic test techniques have known benefits. The Payame Noor University as the biggest state owned university was established with a special educational system across the country and attracted millions of students in different branches with the motto of education for all, everywhere and every time. Considering the fact that "PNU electronic tests were launched since 2012 and administered in a pilot form in some branches, we saw this sort of tests administering in the PNU by the academic year of 2012-2013, replacing the paper and pencil tests".(www.pnu.ac.ir) In 2014, electronic tests were administered for close to two million people in 506 PNU branches right across the country. The current research, viewing the effective role of electronic tests in the scientific expansion and utilization of scientific method in strengthening electronic tests, has dealt with students' attitudes to use this method for end term tests. It also seeks to find some measures to enhance the tests' scientific structures.

II. LITERATURE REVIEW

The research by Rahmani (2005) on investigating the content of experimental virtual educational courses indicted that from the view of the researcher

and teachers, ways of evaluating educational courses within virtual experimental courses were good.

Upon investigating the features of virtual universities in Iran, Tafakhori (2015) indicated that the average students' attitude has risencompared to the average classes, and in other words, students have a positiveattitude to virtual education.

According to the findings by Latifnejad et al (2010), students were found to have positive attitude to thiseducational method despite the fact they had low knowledge of electronic tests, and a significant relationship was also found between educational major and peoples' attitude to electronic test methods.

Zolfaghari et al's study (2010) indicated that virtual educationinvolves such privileges: increased quality of learning, and knowledge of students, and easiness of access to a high level of information and knowledge about the world. On the efficacy of the combined electronic education system, they showed that most students and instructors did have a positive attitude to modern educational technologies.

Results by Fathi Vajargah, Pardakhtchi and Rabi'ea (2011) showed that from the view of professors, the virtual education courses were effective and students assessed the efficacy of these courses at a moderate level. Also, a comparison of students and professors'views illustrated that professors had more positive views compared to students on the effectiveness of virtual courses.

Research results by Saeedi Nejat and Vafa'ea Njajr (2011) indicated that there was no significantdifference between the mean students' scores in both physical (presence) test and virtual test. Virtual education was found to be good in terms of access to objectives and removal of educational needs, content and sequence as well as material and test, and there was no significantdifference between the proportion of the curricular content and objectives of the virtual education and the number of mistakes students made in te end examinations. Students' dominance over computer programs was related with success of work with the virtual education system and computer test scores.

Investigating students' attitudes to the application of electronic tests in teaching clinical biochemistry, Mirza'ea, Ahmadi Pur and Azizian (2012) found out that studied students who had experienced two sessions of electronicbiochemistry tests including mechanism of relevant diseases alongside physical tests (i.e. tests with physical presence), had positive attitude to this educational method.

Findings by Jahanian E'tebar (2012) suggested that students participating in the virtual educational courses at electroniceducationcenters had satisfaction about the accessibility to the facilities of the virtual centers, and learning through this method and the

application of the virtual education methods, though they did not have a positive attitude to the virtual education methods.

Results by Khodad Hussini and Zabihi (2013) illustrated that the characteristics of the individual teaching as well as educational material through perceived utility and satisfaction were found to be directlyleaving positive effects on the intent to use theelectronic tests. This is while the perceived utility, from among available variables, did have the highest impacts on the intent to use electronic education.

In a research by Khandaghi and Kazemi Gharache (2014), the Independent T Test and MANOVA results suggested an insignificant difference between the mean total Quality of Electronic Content Scale and its components in terms of gender. ANOVA and MANOVA results also indicated a significant difference between the mean total of the Electronic Content Scale and its components in students of various majors. In sum, one can say that the quality of content provided in the electronic courses was relatively good from the view of students at the Mashhad University of Medical Sciences.

According to a research by Vatan -*Parast*, Royani and Ghasemi (2015), there was a positive attitude to the virtual education among students. Attitudes to the virtual education in people with differentlearning styles were also different. Also, it was found that from among demographic variables, only the variable of age was having a significantly reverse relationship with students' attitudes.

Investigating the ills from administering electronic tests at PNU, Habibi (2016) indicated that ills from administering electronic tests from the view of students were education of students, students' attitudes,test content, accountability by official holding such test, fast, accurate and useful feedbacks,physical space of test administration, and technical issues pertaining to hardware and software respectively. Also, from the view of staffs, ills were the physical space of the test administration, students' digital literacy, staffs' attitudes, administration incurred costs, coordination and cooperation in administration, legal issues, staffs' motives, test's technical issues, feedbacks, staffs' familiarity with the testmonitoring over administration and security issues.

Research results by Kiakajoori and Mirtaghian Roodsari (2016) indicated that from the view of students at Marine University of Imam Khiomeini, Noshahr, all factors (educationinstitute, technology, sourceslogistics,management, designingrelationships,moral issues, evaluation and

development) were respectively affecting the development electronic tests.

Karimzadegan Moghadam et al (2011) considered four variables of flexibility, quality of electronic learning course. Quality of technology and diversity of evaluationwere the most significant factors affecting the satisfaction of electronic learners.

According to a research by Suibir and Kgankenna (2002), researchers attach much value for modern IT in agriculture sector, but they lack the hardware and software skills and tools in this area, and there was a negative and significant correlation between the level of obstacles on the path of using IT and researchers' use of these technologies in education.

Choi (2003) indicated that according to students' attitudes, such factors as professors' acceptance and guidance, and availability of multimedia educations were the most important variables affecting their attitudes on the efficacy of electronic tests.

Findings by Chen et al (2004) suggested that high level of learners' satisfaction led to increased motive and commitment to electronic learning programs, academic achievement and reduced drop-outs.

In their own study, Roka, Chew and Mrtinez (2006) found three factors of technology quality, services and systems as effective on the satisfaction of users and their intention to use electronic tests

Research results by Green et al (2006)on assessing the use of the virtual education setting among nursing students showed that in total, the use of the virtual setting led to good experience of learning in students.

In a study by Michelle et al (2007) on nursing students, it was found out that the students accessing education a l departments frequently via websites had acquired higher scores.

Hussin et al (2009) have investigated the elements affecting educationaldesign in the electronic education environment at high education centers in Malaysia and use of electronic tests in learners. Findings indicate that a positive impression of electronic tests among learners at selected universities and their interaction with the course content were among the most significantsatisfactory factors pertaining to the principles of educational designing.

Tuma (2010) while investigating the model of using the electroniceducation system by learners at the campus of one of the British universities, concluded that a high percentage of leaners showed a positive attitude and perception to the application of electronic

tests, and the sue of electronic education usage was at a high level as supplementary to education.

Chen Her et al (2010) referred to such cases as sufficiency of work with computers, system functions, content quality interaction,administrativeexpectations and space of learning as indices of users' satisfaction about electronic tests (Quoted by Habibi, 2016).

Nneka Eke (2011) indicated that such factors as attitudes to electronic education, tendency to learning through virtual education, access to the facilities of this educational method, coercion and requirement to the application of virtual education method, utility of the virtual education method could potentially affect the users of course.

Although the conduct of researches on the virtual education in on the rise, an investigation of researches inside or outside of Iran reveals that given the fact that numerous surveys have been done in the area of service quality,evaluation of the electronic higher education,most researches without attention to two major features of electronic learning (specificity and complicatedness) have laid emphasis on the analysis of webs and electronic commerce, and no comprehensive model has been detailed for investigating the various parts of electronic services quality in the higher education. Most researches have focused on the role of electronic virtual education and studies over attitudes to electronic tests are limited.

III.THEORETICAL FRAMEWORK

One of the famous theories in the virtual education is the Russell's theory (1999). In his various studies, he compared traditional educational classes with virtualeducational classes. Though he was an opposite figure to the virtual education, he concluded in his studies that with the virtual education prevailing, this educational method will be cost effective scientifically and economically (Quoted by Fathi v ajargah, Pardakhtchi and Rabi'ea, 2011).

Kuhn,T.S.(1970) argues that model of scienceprogress is a transformation from one paradigm to another and one can find a paradigm in any area. IT is a new paradigm which is applicable in any area and has provided the possibility of education appropriate to the needs of the current era while creating other paradigms.

Lim et al (2007) reported such factors as individual characteristics, designing of courses, and organizationalfeatures in form of an effective model of electronic education. (Lam and Mcnaught, 2008). They reported a three layer model of electronic education through investigating the effects of the dimensions of strategies (the context of evaluation questions), and via developing and improving programs, gathering data, analyzing data, making decisions and laying the ground for electronic education .Jafee (2011)emphasized major success factors within electronic settings in the higher education. The factors are: attraction, content, accountability and quality, usability and interaction, certainty, expertise in developing content, motivation and commitment.

Nagunwa.T and Lwoga,E (2013) considered individual, educational and organizational characteristics as effective on the outcomes of electronic education. Sugant (2014) states that while assessing the electronic learning system, one has to place emphasis on the main dimensions of information quality (content, navigability) and system quality (technical and accountability sector).

Stowell and Lamshed (2011) offered strategies for promoting electronic assessment quality. These strategies have ben classified in five categories of providing basics and infrastructure, technical standards, development and maintenance of electronic assessment, electronic assessment operations and electronic assessment ground. If electronic education services are provided in a form with an attractive design and based on clients' needs, this will certainly cause learners to feel that the use of electronics education system is much easier for them. According to the perspectives mentioned and stud9es by researchers, a research conceptual model is provided

Figure1: Research conceptual mode
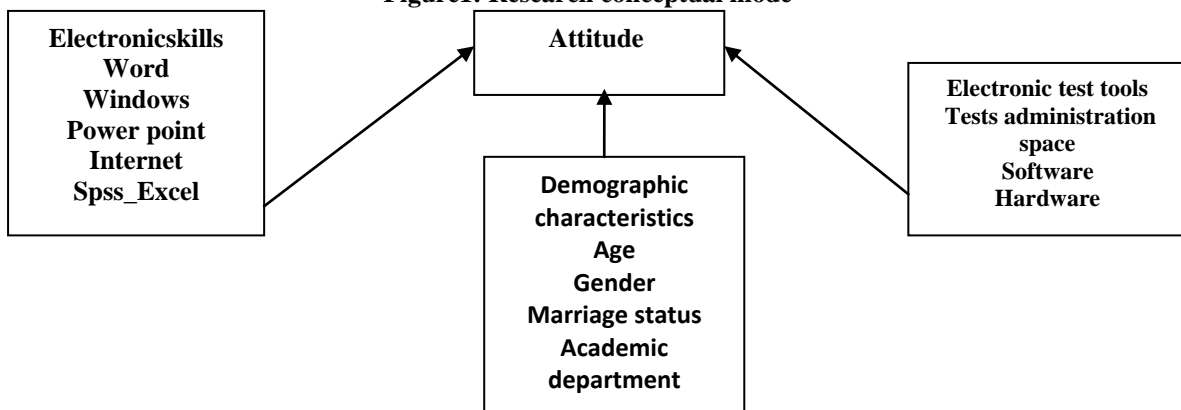
IV. METHODOLOGY

The current research fell into applied categories in terms of goal and was descriptive-analytical. The statisticalpopulation consisted of Saghez PNU students in the first semester of the academic year of 2016. According to the Morgan Table of Sample Size, the number of 225 people of various pilot departmentsparticipating in electronic tests was selected and their attitudes to electronic tests for end terms were studied. The sampling method in this research was a simple random method and the studied population was comprised of electronic tests. Tools for gathering data was a researcher made questionnaire approved by reviewers and included individual characteristics (6 questions), skills (5 questions), quality of electronic test tools (3 questions) and attitude measurement (28 questions) based on a five degree Likert scale ranging from totally agree to totally disagree on the electronic test. To measure the validity of the test, the content validity and to measure the reliability, the Cronbach's alpha were used, and the questionnaire's reliability was obtained 92%. After collecting data, questionnaires were coded and SPSS software was applied for analysis. Also, the statistical methods including two descriptivestatistics (mean, standard deviation, table of frequency distribution) and inferentialstatistics (Pearson correlation coefficient and variance analysis coefficient) were used in the data analysis.

V. DESCRIPTIVE AND ANALYTICAL FINDINGS

According to the responses provided for each of the questions and items raised in the questionnaire and scoring of them at a descriptive level in Table 1, percentage and frequency distribution of individual and demographic characteristics including gender, age academic department, marriage status, employment and place of residence have been provided. From a total of 225 students participating in the research, 127 people, i.e. 56.4% were women and 43.6% were men. This indicates the greater tendency by women towards education in the PNU. A high percentage of students in the age group of 19-24 (35.1%) and two age groups of 25-30 and 31-36 and low percentage in the age group of over 37 suggest the PNU student population is young.

Because the research universe is young, a high percentage of people, i.e. 72% are singles and 68.4% are unemployed and jobless. Despite policies adopted by the PNU in providing educational facilities for the employed and married people, it is interesting to revise programs in line with young, single and unemployed people. The Humanities group constituted the highest percentage of the sample population. The high percentage of local people (64.9%) in the research under study is suggestive of the growth and expansion of academic centers across the country.

Table 1: Students' demographic characteristics for the electronic tests, PNU

Variable	Option	Frequency	Percent
Gender	Women	127	56.4/%
	Men	98	43.6%
Age	19-24	79	35.1%
	25-30	51	22.7%
	31-36	48	21.3%
	37-42	31	13.8%
	43and higher	16	7.1%
Marriage status	Single	162	72%
	Married	49	21.8%
	divorced	14	6.2%
Academic department	Humanities	119	52.9%
	Basic sciences	41	18.2%
	Technical engineering	26	11.6%
	Agriculture	39	17.3%

Employment status	Employed	71	31.6%
	Unemployed	154	68.4%
Local status	Local	146	64.9%
	Non-local	79	35.1%

Source: Research findings

Given the role of computer skills in the electronic tests in Table 2, it was shown that most people of the universe under research, i.e. 40% enjoyed computer skills at a high date, while 36.4% and 23.6% had moderate and low rates respectively

Table 2: Electronic test students in terms of computer skills

Skills	Very low	Low	Moderate	High	Very high
Word	20(8.9%)	65(28.9%)	87(38.7%)	41(18.2%)	12(5.3%)
Windows	35(15.5%)	51(22.7%)	82(36.4%)	49(21.8%)	8(3.6%)
Power point	27(12%)	58(25.8%)	83(36.8%)	36(16%)	21(9.3%)
Internet	36(16%)	51(22.7%)	91(40.4%)	29(12.9%)	18(8%)
SPSS-Excel	49(21.8%)	58(25.8%)	64(28.4%)	31(13.8%)	23(10.2%)

Source: Research findings

Electronic test tools were not so suitable in terms if students. Table 3 shows that 35.6% considered the space as appropriate, 38.2% considered software inappropriate and 35.1% considered the hardware as inappropriate. Overall, 54.6% considered the quality of electronic test tools as inappropriate, 26.7% moderate and a low percentage, i.e. 18.7% considered them as appropriate

. **Table 3: Students based on the quality of electronic test tools**

Quality of electronic test tools	Very inappropriate	Inappropriate	Moderate	Appropriate	Very appropriate
Test administration space	45(20%)	80(35.6%)	65(28.9%)	30(13.3%)	5(2.2%)
Software	43(19.1%)	86(38.2%)	51(22.8%)	25(11.1%)	20(8.9%)
Hardware	36(16%)	79(35.1%)	63(28%)	29(12.9%)	18(8%)

Source: Research findings

Students' attitudes to end tern electronic tests in Table 4 indicate that most students, i.e. 87.67% had a fully positive attitude to end term electronic tests and a very low percentage had negative outlook. The consistency of the results with studies by Khandaghi et al (2009) on the relatively good quality of electronic test courses from the view of Mashhad University of Medical success students; Mohamadi et

al (2008) on students' positive attitudes to electronic tests; Tafakhori (2015) on students' positive attitudes to the virtual education; Zolfaghari et al (2010) on positiveattitudes of students and instructorstowards the virtual education and modern technologies in education; Rahmani (2005) on favorability of evaluation ways of educational courses in the virtual education courses from the view of teacher aids; Latif Nejad et al (2010) on student's' positive attitude to electronic tests, despite low level of electronic knowledge; Fathivajargh, Pardakhtchi and Rabi'ea (2011) on professors' positive views compared to students on the efficacy of virtual education; Vatanparast, Royani and Ghasemi (2015) on students' positive attitudes to the virtual education and the different attitude of people with various learningstyles; Mirza'ea, Ahmadipur and Azizian (2012) on students' positiveattitudes to electronic test styles; Chen et al. (2004) on learners' satisfaction about motives and commitment to the electronic learning program; Green et al (2006) on nursing students' positive attitude to using the virtual

environment as an educational setting and good learning experiences; Tuma (2010) on learners' positive outlook for the electronicsystem at a British university are all confirmatory to research findings.

Research by JahanianEtebar (2012) despite satisfaction in the society intended about educationalcoursesfacilities and not having positive attitudes towards the virtual educationwere not consistent with the current research findings. Overall, positive attitudes to the electronic tests in Iran and the world and for Venkatesh (2000), improving consumption patternsacross the society through increasing national knowledge, enriching human capital, reducing educational costs, learningopportunities at any age, transferringacademic culture to all over the world, materializingjustice in the educational system, fast access to new educations, coordinating speed of education with learners' ability, flexibility of learning process, usability of the services can all contribute greatly.

Table 4: Students' attitudes to end term electronic tests, PNU

Item	Agree	Very agree	Indifferent	Disagree	Very disagree
Holding end term tests electronically	125(55.5%)	60(26.7%)	5(2.2%)	24(10.7%)	11(4.9%)
Holding midterm tests in an electronic form is better	76(33.8%)	60(26.7%)	18(8%)	50(22.2%)	21(9.3%)
Holding tests traditionally is better	21(9.3%)	31(13.8%)	10(4.5%)	84(37.3%)	79(35.1%)
electronic test is cost effective	98(43.5%)	51(22.7%)	13(5.8%)	42(18.7%)	21(9.3%)
Electronic tests are not that interesting	32(14.2%)	24(10.7%)	5(2.2%)	69(30.7%)	95(42.2%)
Designing questions for electronic tests is appropriate	103(45.8%)	49(21.8%)	7(3.1%)	37(16.4%)	29(12.9%)
Duration of responding to the electronic tests is enough	110(48.9%)	38(16.9%)	4(1.8%)	48(21.3%)	25(11.1%)
All test should be performed electronically	82(36.5%)	64(28.4%)	2(0.9%)	58(25.8%)	19(8.4%)
The electronic test accuracy factors is high	108(48%)	69(30.6%)	6(2.7%)	27(12%)	15(6.7)
The accuracy and genuineness of electronic tests is greater than traditional tests	109(48.5%)	67(29.8%)	5(2.2%)	30(13.3%)	14(6.2%)
Using technology will render in fostering responses to electronic tests	126(56%)	57(25.4%)	3(1.3%)	27(12%)	12(5.3%)
It is imperative to apply advanced technologies in holding tests	118(52.5%)	61(27.1%)	2(0.9%)	29(12.9%)	15(6.6%)
Forming classes for familiarity with the electronic tests is necessary	103(45.8%)	54(24%)	14(6.2%)	24(10.7%)	30(13.3%)
An electronic test avoids rights violations	112(49.7%)	60(26.7%)	9(4%)	18(8%)	26(11.6%)
Electronic tests are safe manners for measuring	91(40.5%)	70(31.1%)	3(1.3%)	38(16.9%)	23(10.2%)

students					
All are equal in electronic tests	123(54.7%)	53(23.6%)	11(4.9%)	21(9.3%)	17(7.5%)
Electronic tests play major roles in the progress of the university	143(63.6%)	46(20.4%)	6(2.7%)	18(8%)	12(5.3%)
Electronic equipment responds to all tests	67(29.8%)	45(20%)	3(1.3%)	76(33.8%)	34(15.1%)
Electronic tests avoids discriminating students	104(46.2%)	83(36.9%)	2(0.9%)	22(9.8%)	14(6.2%)
Passing through educational workshops for electronic tests is necessary	42(18.6%)	121(53.8%)	4(1.8%)	33(14.7%)	25(11.1%)
Electronic tests scores are more realistic than traditional tests	125(55.5%)	64(28.4%)	3(1.3%)	21(9.3%)	12(5.3%)
Access to electronic tests scores are quicker than Traditional tests	101(48.8%)	93(41.3%)	2(0.9%)	18(8%)	11(4.9%)
Concentration in responding to electronic tests is greater than that in traditional tests	139(61.8%)	59(26.2%)	2(0.9%)	14(6.2%)	11(4.9%)
Electronic tests are fairer than traditional ones	111(49.3%)	89(39.6%)	8(3.6%)	11(4.9%)	6(2.6%)
Tendency to respond to electronic tests is greater than traditional tests	107(47.6%)	58(25.8%)	13(5.8%)	35(15.5%)	12(5.3%)
It is imperative to change the students; attitudes from electronic tests to traditional tests	94(41.8%)	83(36.9%)	6(2.6%)	25(11.1%)	17(7.6%)
It is imperative to see a guide present in the electronic test	76(33.8%)	59(26.2%)	11(4.9%)	42(18.7%)	37(16.4%)
Electronic tests are better than traditional ones from a scientific assessment	89(39.6%)	63(28%)	16(7.1%)	36(16%)	21(9.3%)

Source: Research findings

Table 5: Mean and standard deviation of attitude score on end term electronic tests as distinguished by demographic characteristics, computer skills and electronic test tools

Variable	Option	Frequency	Attitude score	p-value
Gender	Women	127(56.4%)	3.46±1.87	0.000
	Men	98(43.6%)	3.28±0.47	
Age	19-24	79(35.1%)	3.92±0.79	
	25-30	51(22.7%)	3.46±0.53	
	31-36	48(21.3%)	3.41±0.43	0.0075
	37-42	31(13.8%)	3.3±0.35	
	43and higher	16(7.1%)	3.6±0.85	
Marriage status	Single	162(72%)	3.96±0.98	
	Married	49(21.8%)	3.71±0.46	0.003

	Divorced	14(6.2%)	3.65±0.55	
Academic department	Humanities	119(52.9%)	3.99±1.67	0.000
	Basic sciences	41(18.2%)	0.67±0.56	
	Technical engineering	26(11.6%)	3.44±0.59	
	Agriculture	39(17.3%)	3.81±0.41	
Computer skills	High	53(23.6%)	3.72±55	0.000
	Medium	82(36.4%)	3.98±83	
	Low	90(40%)	3.69±1.38	
electronic test tools	Appropriate	42(18.7%)	1.38±0.31	0.000
	Moderate	59(26.7%)	3.76±0.69	
	Inappropriate	123(54.6%)	3.86±1.22	

Source: Research findings

According to the results of this study, the mean and standard deviation of students' attitude scores in women were 3.46±1.87 and in men 3.28±0.47 respectively. A significant difference was seen between the mean attitude score among women and men (p<0.000). Women were found to have more positive attitude than men and this finding was not in line with the findings by Khandaghi et al (2009) who observed no significantdifference between the total mean of the Quality of Electronic Content Scale or the component of gender.

There was no statistically significant relationship between age and attitude (p-0.75). This finding was consistent with the research results by Vatanparast, Royani and Ghasemi (2015) who observed a reverse relationship between age and attitude. There was a significant relationship between marriage status and attitude (p<0.000), and the singles had more positive tendency than the married and divorced people towards electronic tests.

The academic department was also found to have a significantrelationship with attitude (p<0.000). Humanities students had more attitude and Technical and Engineering members had the least attitude to electronic tests. From the view of students majoring in Basic Sciences, Technical and Engineering and Agriculture, electronic tests are specific to Humanities and this finding was in line with that of Latif Nejad et al (2010) regarding a significant relationship between attitude and academic department.

A significant relationship between computer skills and attitude (p<0.000) was a confirmation on shortfalls in students' skills and thisfinding was consistent with the findings by Saeedi, Nejat, Vafa'eaNajjar (2011)on the relationship of students' skills and dominance over the virtual education and computer test scores; Khoadadad Husseini and Zabihi (2013) on positive effects of educational material on the intent to use electronic tests among users; Habibi (2016) on educating students over the ills from electronic tests; Kiakajoori and Mitrtaghian Roodsari (2016) on the influence of education (skills) on developing electronic education from the view of students at Marine University, No shahr ; Karimzadegan Moghadam et al (2011) on the quality of learning courses on the satisfaction of electronic learners; Chui (2003) on multimedia education and students' attitudes about the efficacy of electronic educations.

There was a significant relationship between attitude and electronic test tools (p<0.000) and electronic test tools had played a role as an effective variable affecting students' attitudes. This finding has been consistent with findings by Kiakajoori and MirtagianRodsari (2016) on the impacts of technology on electronic education from the view of Maribne students, Noshahr; Habibi (2016) on the physical space of test administration, technical and software issues related with the ills from the administration of electronic tests in PNU from the view of students and staffs; Karimzadegan Moghadam et al. (2011) on the impacts of technology quality and diversity on assessing the satisfaction of electronic learners; Roca and Chew martinez (2006)

on the impacts of the quality of technology, services and systems on the satisfaction of electronic education users and Chen et al (2010) on the sufficiency of work with computers systems' performance and space of learning on the satisfaction of users when working with electronic education.

The distance learning system, because it enjoys necessary capabilities to help governments materialize national development and programs approved with little costs and easiness, encourages governments to use this educational system. The Mito's theoretical views (2006) on the application of various technological and digital characteristics in electronic learning systems; Lim et al (2007) on individual characteristics, designing of courses, organizational properties in an effective electronic education form, Jafee (2011) on major factors of electronic success in the higher education; Nagoologa (2013); on the role of individual, educational and organizational characteristics on electronic education outcomes and Saganet (2014) on the quality of information in electronic learning; Stoll and Lamshed (2011) on infrastructures, technical standards, development a maintenance of electronic assessment in promoting the quality of electronic assessment and Kuhn(1970) o the creation of global parameters in education all suggest consistency with the findings of this research.

VI. CONCLUSION

Findings showed that the population studied lies in the age group of young people. Women accounted for 56.4% of the population, indicating the predominance of women in the center. That 72% of the studied population was singles necessitatestyhe PNU policies to be revised. According to the fact that the researchpopulationwas young and were singles, as many as 68.4% of thepeople lacked jobs.Following the frequency of Humanities at PNU, 52.9% were in Humanities and fewer percentages were in Basic Sciences and TechnicalEngineeringand Agriculture Departments. The growing trend of PNU centers have resulted in the promotion of local forces, such that 64.9% of the studied population were local forces. A high percentage of the studiedpopulation, i.e. 40% had fewer computer skills and 54.6% assessed electronic tools as inappropriate.

Theconsistency of studies results with findings by Khandaghi et al (2009), Mohamadi et al. (2008), Tafakhori (2015), Zolfaghari et al (2010), Rahmani (2005), Latifnejad et al (2010), Fathi Vajargah, Pardakhtchi and Rabi'ea (2011), Vatanparast, Royani and Ghasemi (2015), Mirza'ea , Ahmadipur and Azixian (2012), Chen et al (2004), Green et al (2006), Huson et al (2009), Tu ma (2010) confirm the overall results.

According to the results, a significant difference was seen between the mean attitude scores in men and women and this finding was not consistent with the research by Khandaghi et al (2009). The findings were in line with those of Vatnparast, Royani and Ghasemi (2015). There was a significant relationship between marriage status and attitude. There academic department was significantly related with attitude and this was consistent with findings by Latifnejad et al (2010).

A significant relationship was found between computer skills and attitudes and this was inline with finding by Saeedi, Nejat, Vafa'eaNajjar (2011), Khodadad Husseini and Zabihi (2013), Habibi (2016), Kiakajori, MirtaghianRooodsari (2016), KarimzadeganMoghadan et al (2011), Chui (20o3).

significant relationshiop was found between attitude and elctronic test tools and this is in line with Kiakahori, Mirtaaghian Roodsari (2016), Habibi (2016), Karimzadeghan Moghadam et al. (2011), Roca, Chew and Martinez (2008), Chen her et al. (2010). Study results indicated that students, general, had a positive attitude to electronic tests and in determining variables affecting their attitudes to electronic tests in end terms, such variables as gender, marriage status, academic department, computer skills and electronic test tools had determining roles and were significantly related with students' attitudes.

The Payame Noor University is a distancelearningapproach in which fewer classes are held compared to other universities and most classes held are not binding. The end term examination is the major source which determinesthe final score for the student. For this, the accurate and proper holding of tests and supervising the faultless administration of examinations assume importance (Habibi, 2016). According to the research findings, it is imperative to lay the ground for development, and to optimally use electronic test and to raise the awareness level among PNU students in line with their needs. Consistent with these goals, the conduct of the following acts is necessary and recommended: increasing confidence factor in the electronic test infrastructure, improving and strengthening indices of sources logistics, proportion of technological facilities with the students' needs, promoting the quality of the electronic test hardware and software, data base logistics, designing educational programs such as workshops in order to raise the ability to use electronic test as an effective tool and expanding the physical space for administering an optimal electronic test.

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