Abstract

The study examined postgraduate students’ attitudes towards web based distance learning. For this purpose, web-based distance learning (WBDL) attitude questionnaire and demographic survey are applied to Gazi university information technology distance learning postgraduate students. 64 postgraduate students were attended the study. Students could mark questionnaire options such as strongly disagree, disagree, neutral (neither agree nor disagree), agree, strongly agree. Descriptive statistics, independent-sample t test, correlation, one-way ANOVA techniques are used for analyzing data. The statistical significance level was accepted as 0.05 in the study. Results revealed that there is a general positive attitude towards distance learning. The attitudes of females towards web based distance learning were found to be significantly more positive than males. The majority of students found themselves more comfortable in distance learning than traditional learning and they also found that distance learning was more efficient than traditional learning. However, the majority of students found that they felt bored while they are studying over the web. On the basis of results, some proposals are made for postgraduate distance learning. It is considered that the evaluation results obtained from study would be beneficial for postgraduate distance learning studies.

Keywords: Postgraduate Distance Learning, SPSS

1. Introduction

The 21st century is an era of quick changes in the social, economic, political and cultural values. As an element of the society, education is affected by those changes as well. The high demand for personal development, the great increase in population, the technological developments spreading their effects to the education and the new perspective viewing education as a key to remaining competitive in the national and international enterprises lead to an inquiry for new, effective and efficient methods in education. (Icbay 2005). In this context, distance education is emerged as effective and efficient methods for education. Distance education is a new trend in education that gives a chance to everyone and offers options to learn better under the constructivist approach. (Galusha 1997). In other words, distance education is a teaching and learning process in which the learners are physically separated from the instructors, and thus the obligation to attend a class at a particular time and place is removed. Similarly, Moore (Moore 1989) defines distance education as “the family of instructional methods in which the teaching behaviors are executed apart from the learning behaviors […] so that communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices”. As a core element in the definitions, distance education enables the instructor or the course to travel to the students. Distance education as a basic concept enables students to engage with and understand the materials, communicate with teachers and fellow students and explore both a personalized and collaborative approach to learning along with bridging geographical distance (Kennedy, 2002).
For some, distance education is a new and wonderful tool for improving and increasing access to the education experience.

2. Gazi University Postgraduate Distance Education

By opening two associate degree programs, Gazi University launched distance education in 2006-2007 academic year. Now, this education is carried on with three postgraduate distance education programs which named as information systems, health informatics, management information systems. Asynchronous course contents are developed under the supervision of expert people in educational technology. Furthermore, multimedia tools, video, interactive animations are used in course content (İşik 2009). In addition to this, with synchronous video and chat educational software, students and instructor can interact with each other.

3. Method

3.1. Study Group

The study group was consisted of 64 postgraduate students, 6 female and 58 males, from department of information systems in Gazi University Informatics Institute.

3.2. Data Collection Tool

In the study, web based distance learning attitude questionnaire was applied (Ensaroğlu 2010) to the students. Questionnaire items were strongly disagree, disagree, neutral (neither agree nor disagree), agree, strongly agree. Values of items were varies from 1 to 5 respectively.

3.3. Analyzing of questionnaire data

Research data results were entered into SPSS 15.0 program. Descriptive statistics, independent-sample t test, correlation, one-way ANOVA techniques were used for analyzing data.

4. RESULTS AND COMMENTS

In this part, findings are presented as a result of analysis of data in the study. First sub-question investigates whether or not there is a meaningful statistical differentiation among WBDL (Web-based distance learning) attitude means in terms of gender. As a result of t-test, it was determined that attitudes of students towards WBDL differentiate meaningfully in terms of gender \( t = -2.109 \ p < 0.05 \ (0.039) \). The attitudes of females towards WBDL were found to be significantly more positive than males \[ 98.333 > 87.088 \].

| Gender     | N   | Mean   | Std. Deviation | t- value | p     |
|------------|-----|--------|----------------|----------|-------|
| Total Attitude Degree of Questionnaire | Male | 58    | 87.088         | 12.956   | -2.109| 0.039|
|            | Female | 6     | 98.333        | 2.334    |        |      |

Second sub-question of the study was represented as “I can freely express myself in WBDL”. T-test was applied in order to determine whether or not there is a meaningful statistical differentiation among percentage point means in terms of gender. As a result of t-test, it was determined that attitudes of students towards sub-question differentiate meaningfully in terms of gender \( t = -2.667 \ p < 0.05 \ (0.029) \). It was found that females express herself more freely than males in WBDL.
Table 2. T test result according to whether students expression themselves in WBDL in terms of gender

| Gender                  | N  | Mean | Std. Deviation | t- value | p     |
|-------------------------|----|------|----------------|----------|-------|
| Male                    | 58 | 3.667| 0.636          | -2.677   | 0.029 |
| Female                  | 6  | 4.167| 0.408          |          |       |

Third sub-question of the study was represented as “Do you think that WBDL is more effective than traditional learning”. As a result of sub-question, it was determined that majority of students found WBDL is more effective than traditional learning [%64.1].

Table 3. Sub-question of “Do you think that WBDL is more effective than traditional learning?”

| Do you think that WBDL is | Frequency | Percent |
|---------------------------|-----------|---------|
| Yes                       | 41        | 64,1    |
| No                        | 4         | 6,3     |
| Partially                 | 19        | 29,7    |

Fourth sub-question of the study was represented as “I find myself more comfortable in WBDL than traditional learning”. As a result of sub-question, it was determined that majority of students found themselves more comfortable in distance learning than traditional learning [%78.1].

Table 4. Sub-question of “I find myself more comfortable in WBDL than traditional learning”

| I find myself more comfortable in WBDL than traditional learning | Frequency | Percent |
|-----------------------------------------------------------------|-----------|---------|
| Agree                                                           | 50        | 78,1    |
| Neutral (neither agree nor disagree)                            | 14        | 21,9    |

Fifth sub-question of the study was represented as “I get bored while I am studying over the web”. As a result of sub-question, it was determined that majority of students found that they felt bored while they are studying over the web [%40.6].

Table 5. Sub-question of “I get bored while I am studying over the web”

| I get bored while I am studying over the web | Frequency | Percent |
|---------------------------------------------|-----------|---------|
| Strongly Agree                              | 3         | 4,7     |
| Disagree                                    | 19        | 29,7    |
| Neutral                                     | 16        | 25,0    |
| Agree                                       | 24        | 37,5    |
| Strongly Agree                              | 2         | 3,1     |

Sixth sub-question of the study was represented as “I recommend WBDL to my friends”. As a result of sub-question, it was determined that majority of students recommended WBDL to their friends [%87.5].
The Pearson Product-Moment Correlation Coefficient (r), or correlation coefficient for short is a measure of the degree of linear relationship between two variables, usually labeled X and Y. The scatter plot best illustrates how the correlation coefficient changes as the linear relationship between the two variables is altered (David 1998). The scatter plot presented below also best illustrates correlation There is a weak and positive relationship (Pearson Correlation=0.273 and it is between 0.26 - 0.49).

![Scatter plot of Correlation](image)

**Table 6. Sub-question of “I recommend WBDL to my friends”**

| I recommend WBDL to my friends | Frequency | Percent |
|--------------------------------|-----------|---------|
| Neutral                        | 8         | 12.5    |
| Agree                          | 31        | 48.4    |
| Strongly Agree                 | 25        | 39.1    |

**Table 7. Correlation of demographic survey question versus questionnaire sub-question**

|                   | Working Years | WBDL will be inevitable in coming years |
|-------------------|---------------|----------------------------------------|
| Working Years     |               |                                        |
| Pearson Correlation| 1            | 0.273(*)                                |
| Sig. (2-tailed)   |               | 0.029                                  |
| N                 | 64            | 64                                     |
| WBDL will be inevitable in coming years |               |                                        |
| Pearson Correlation| 0.273(*)     | 1                                      |
| Sig. (2-tailed)   | 0.029         |                                        |
| N                 | 64            | 64                                     |
Correlation is significant at the 0.05 level (2-tailed).

As it is seen from the table, the significance level is smaller than 0.05, so the correlation is significant and the two variables are linearly related. Working years and students’ mark regarding to sub-question are increasing together.

Table 8. Descriptive analysis of the purpose of students Internet usage versus sub-question

| N | Mean  |
|---|-------|
| Research | 39    | 4.3947 |
| Education | 8     | 4.4286 |
| Communication | 17   | 3.8125 |

As it is seen from the descriptive analysis, sub-question mean score of those who use the Internet for research purposes is the biggest one.

Table 9. One Way ANOVA test results

| Sum of Squares | df | Mean Square | F       | Sig. |
|----------------|----|-------------|---------|------|
| Between Groups | 4,587 | 3 | 1,529 | 3,839 | 0.014 |
| Within Groups  | 23,897 | 60 | 0.398 |       |      |
| Total          | 28,484 | 63 |       |       |      |

One way ANOVA test was applied so as to determine whether or not there is a meaningful statistical differentiation among “the purpose of students Internet usage” in terms of sub-question of “I recommend WBDL to my friends”. As a result of one way ANOVA test, it was found that the purpose of students Internet usage differentiate meaningfully in terms of sub-question [F=3.839 p<0.05 (0.014)]. It can be said that students who use internet for research recommend is higher than students who use internet for communication.

5. DISCUSSION AND CONCLUSION

There is a growing demand for postgraduate education in Turkey. Distance learning which a new way in the field of education is can meet this requirement. But this learning type must be prepared and presented with educational methodology. Therefore, outcome of Leader University in this area must be evaluated carefully. As a result of the research, it was determined that there is a positive approach to postgraduate distance learning. It can be said that due to the social structure, female students could not express themself freely in traditional learning. However they can express themself freely in web based distance learning. In addition to this, female students express themselves more comfortably in there. Distance learning provides cost free and multimedia enrich education environment for the students. As expected, students who make research recommend web based distance learning much more than other students.

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