

ATTITUDES TOWARDS ONLINE WEB ASSISTED LEARNING: BUSINESS MANAGEMENT STUDENTS

Sinan Aydın

Kocaeli University, Kocaeli Vocational School, Kocaeli, Turkey
sinanaydin1704@yahoo.com

Yaşar Genel

YuzuncuYıl University, Education Faculty, Van, Turkey
yasargnl7@yahoo.com

Celal Mutlu*

Kocaeli University, Kocaeli Vocational School, Kocaeli, Turkey
c_zeno@hotmail.com

ABSTRACT

The internet technology today is a deep aspect of students' lives. Students surf the World Wide Web (www) daily to communicate, get information, listen music or play game and use the other technological activities. Universities provide students with access to high level connections through a special network that students have many alternatives such as information, sports and scientific knowledge.

In this study, it is examined that the attitudes of Business Management Students from a Vocational High School towards a specific type of technology based learning, that of Online Web-Assisted Learning. Data were obtained to analyze differences in attitudes between traditional learning (teacher centered instruction) and Online Web-Assisted Learning, differences in attitudes towards Online Web-Assisted Learning between males and females, the correlation between Internet use and Online Web-Assisted Learning attitudes, and the items that students find fascinating in Online Web-Assisted Learning. The results indicate that there is compelling evidence for the effective role the e-learning can play in developing the teachers' teaching and the students' learning.

Keywords: online web-assisted learning, e-learning, students' attitude, business management program

INTRODUCTION

The term "e-learning" has been thrown around a wide using in recent years; many people in education family are still unaware of what it actually means and how it can help them achieve success in the education and social life. When e-learning comes to education system, teaching was in a classroom of students and a teacher who led the educational activities. At those times, any type of learning was questionable at best. Then the computer evolution happened and it radically changed the learning approaches. the quest for e-learning (electronic-learning), that is, using a computer to aid in the learning process, at the school level had been usable in the 1980's (Hong at al., 2001). Move clearly, e-learning is a computer based educational tool or system that enables people to learn anywhere and at any time. But, today e-learning is mostly delivered though the internet connection, although in the past it was delivered using a blend of computer-based methods like CD-ROM or hard disk.

The term online learning (or, distance learning) includes a number of computer-assisted instruction methods. Online teaching and learning is classroom-delivered instruction via the Internet. Online instruction includes real-time (synchronous) and anytime, anywhere asynchronous) interactions (Vry at al., 2000). According to Feenberg (1998), two parallel processes take place in an online environment:

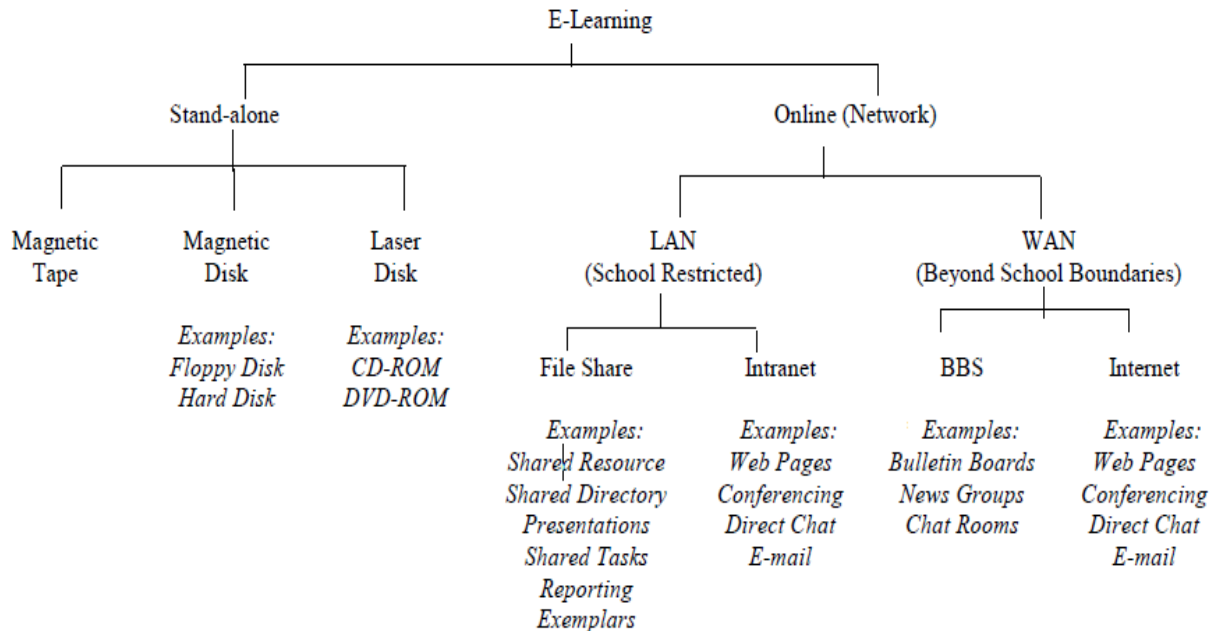
- Students become more active, reflective learners.
- Students and teachers engage in learning through the use of technology and become more familiar with technology by using it.

He stressed that 'online learning is most effective when delivered by teachers experienced in their subject matter. The best way to maintain the connection between online education and the values of traditional education is through ensuring that online learning is "delivered" by teachers, fully qualified and interested in teaching online in a web-based environment'. Online Web Learning (OWL) has turned out as one of the fastest moving trends in education today (Palmer et al., 2001).

*Corresponding author. Tel: +90 533 439 3761; Fax; +90 262 349 39 97

Using of an important technological material in schools has made many positive impacts and developments into teaching and learning. However, it can be said the adaptation of Information and Communication Technologies (ICT) into schools has been slow. However, Woodrow (1991) noticed that teacher and student attitudes for this system was significant for acceptance, success and developing of the new system. Paris (2004) give a figurative classification of E-learning that covers a broad area within ICT Education and comes in many media formats as seen in Table 1 (Paris, 2004).

Table 1. A figurative classification of E-learning



An important approach for the key concept ‘E-learning’ was made by Hong at al., (2001); if a computer is used in teaching, then educational format is Computer Learning (CL). It can be used as two way that;

- Computer Based Learning (CBL), which involves the computer taking the place of the teacher as in distance education
- Computer Assisted Learning (CAL), which involves a teacher using electronic materials about the lecture to make more efficient his/ or her face to face teaching.

In CL, if the computer in the class networked to the Internet with web page access, then Computer learning is expressed as Online Web Learning (OWL). It can be used as two way that;

- Online Web Based Learning (OWBL)
- Online Web Assisted Learning (OWAL)

A figurative version of Hong and his friends’ approach explained about is presented in Tablo 2 and Tablo 3, (Paris, 2004).

Table 2. Parts of computer learning (CL)

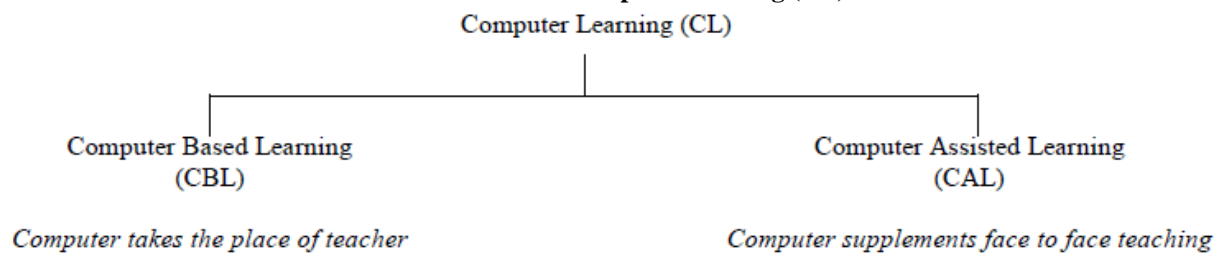
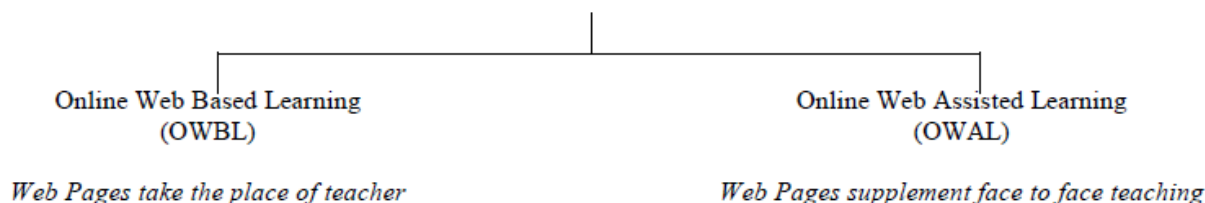


Table 3: Parts of online web learning (OWL)
Online Web Learning (OWL)



METHOD

Forty-six students (20 males and 26 females, 43.5% and 56.5%, respectively) from the businessmanagement department from a vocational high school selected for the study. The students were grouped into two subgroups of 46 students. Basic Information Technology text book (Yıldız at al., 2006) was used to each subgroup in every week at one semester (PAL activity) in the Basic Information Technology Lecture of the program. An OWAL activity was administered that involved multiple linked web pages as its resource. Both the PAL and OWAL activities included colorful photos and graphics. the web pages also included animation and sound presentations in OWAL (Paris, 2004). *There is a unique application difference between the subgroups of the program;* in the lectures of one subgroup, PAL activities were applied activity first; for the second subgroup, the OWAL activities were first

At the end of the semester, the students were applied to an online questionnaire. This questionnaire had four sections of the different information gathered from the students (Paris, 2004):

- Section 1: student personal details and ICT experiences;
- Section 2: students' "behavioral attitudes" towards OWAL;
- Section 3: the "affective attitudes" of students;
- Section 4: the students' "cognitive attitudes".

The items for the questionnaire were obtained from two sources;

One source came from responses provided by a group of 20 randomly selected the program students. The students were asked to provide a written response to two open-ended questions as follows:

1. When learning for school work, which do you enjoy the most; a book or a Web Site?
2. If you have answered a Web Site, then please continue by answering the following question: What makes learning from a Web Site more enjoyable?

The other source came from the Jones and Clarke's (1994) Computer Attitude Scale (CASS).The scoring for the questionnaire was established as follows: Strongly Agree: 5 points; Agree: 4 points; Undecided: 3 points; Disagree: 2 points, and; strongly Disagree: 1 point. In the questionnaire, each of the item codes used in the data collection are presented in Table 4 (Paris, 2004).

The Affective and Cognitive Attitudes (14 and 15 items, respectively) of students have a good internal consistency of 0.85 and 0.83 respectively. That is, the items used to determine these attitudinal components were very reliable. However, the Behavioral Attitudes of students (14 items), the Cronbach Alpha Coefficient was 0.62 (Paris, 2004). The 5-point Likert Scale used in the research questionnaire may have contributed to the low Cronbach value (Palmer, 2001).

The classification of dependence between questionnaire items and the research questions are given Table 5 (Paris, 2004).

Table 4. Definition of Questionnaire Item Codes

| Code | Questionnaire Items |
|------|---|
| P1 | Indicate your gender |
| P2 | Indicate your age group |
| P3 | How many computers do you have at home? |
| P4 | Do you have access to a computer at school to do your school work? |
| P5 | Do you have access to a computer in the classroom for school work |
| P6a | Do you have access to the Internet at home? |
| P6b | If YES to P6 - How often do you use the Internet for chatting (such as ICQ)? |
| P6c | If YES to P6 - How often do you use the Internet for school work? |
| 6d | If YES to P6 - How often do you use the Internet for playing games? |
| P7a | Do you have your own email account? |
| P7b | If YES to P7 - How often do you use the Internet for e-mailing? |
| B1 | I have problems using the mouse when using Web Pages |
| B2 | I have problems using the keyboard when using Web Pages |
| B3 | I have problems using the scroll bars on the Web Pages |
| B4 | If given a choice I would first search for a book to find information for a school project before I search for a Web Site |
| B5 | If given a choice I would get most of my diagrams for school projects from a text book than a Web Site |
| B6 | I avoid using Web Sites whenever I can |
| B7 | I have problems finding my way around a Web Site |
| B8 | I learn to use new Web Sites by trial and error |
| B9 | Other students look to me for help with Web Sites |
| B10 | Using Web Sites has increased my interaction with other students |
| B11 | I develop shortcuts, and more efficient ways to use Web Sites |
| B12 | When I have a problem with a Web Site, I usually solve it on my own |
| B13 | I can adjust Web Pages (such as Font sizes) to suit my needs |
| B14 | I download objects (such as pictures and sound) from a Web Site for school use |
| F1 | The Web Assisted activity terrified me |
| F2 | The colors on the Web Assisted activity made it more interesting than the colors on the Paper Assisted activity |
| F3 | I preferred the Web Assisted activity instead of the Paper Assisted activity because it had animation |
| F4 | I preferred the Web Assisted activity instead of the Paper Assisted activity because it had sound |
| F5 | I felt more uncomfortable using the Web Assisted activity than the Paper Assisted activity |
| F6 | I found the Web Assisted activity more boring than the Paper Assisted activity |
| F7 | School work that uses Web Sites for learning makes me feel happy |
| F8 | If I had a choice I would prefer to learn from a book than from a Web Site |
| F9 | I feel helpless when asked to use Web Sites for school work |
| F10 | I feel confident with using Web Sites |
| F11 | I feel threatened when others talk about Web Sites |
| F12 | Web Sites frustrate me |
| F13 | I preferred the graphics on the Web Site better than the graphics on the Paper Assisted activity |
| F14 | I get a sinking feeling when I think of trying to use a Web Site |
| O1 | The Web Assisted activity was easier to use than the Paper Assisted activity |
| O2 | The Web Assisted activity was more difficult to read than the Paper Assisted activity |
| O3 | The Web Assisted activity was more difficult to understand than the Paper Assisted activity |
| O4 | Web Sites will take over Books in the future |
| O5 | Working with Web Sites will not be important to me in my career |
| O6 | There should be more school work that uses Web Sites |
| O7 | All subjects in the future will use Web Sites for learning |
| O8 | Students learn more using Web Assisted activities than Paper Assisted activities |
| O9 | Web sites are difficult to learn from |
| O10 | Finding your way around a Web Site is harder than finding your way around a Book |
| O11 | Boys like using Web Sites more than girls do |
| O12 | People who use Web Sites for work are seen as being more important than those who don't |
| O13 | Working on Web Sites means working on your own, without contact with others |
| O14 | To use Web Sites, you have to be highly qualified |
| O15 | Learning from a Web Site is enjoyable because some include games and movies |

P = Personal, B = Behavior (Behavioral), F = Feelings (Affective), O = Opinions (Cognitive)

Table 6: The classification of questionnaire items and the research questions

| Research Questions | Questionnaire Items |
|---|---|
| Differences in attitudes between PAL and OWAL | B4, B5, F1, F2, F3, F5, F6, F8, F13, O1, O2, O3, O4, O8, O10 |
| Differences in attitudes towards OWAL between males and females | P1, P2, P3, P4, P5, P6, P7, F3, F5, F6, F7, F8, F9*, F10, F11*, F12*, F13, F14*, O1, O5*, O6, O11*, O13*, O15 |
| *Correlation between Internet use and positive OWAL attitudes | P3, P4, P5, P6, P7, B1, B2, B3, B6, B7, B8*, B9*, B10*, B11*, B12*, B13, B14, F7, F8, F9*, F10, F11*, F12*, F14*, O5*, O6, O7, O9, O12*, O13*, O14* |
| *Publishing Elements that students find most appealing in OWAL | B5, B13, B14, F2, F3, F4, F13, O15 |

**Analyze of the research question is not added in this paper.*

Findings

Student Attitudes towards OWAL

Table 7. Mean ratings of attitudes to questionnaire Items

| Code | Behavior | | Code | Affective | | Code | Cognition | |
|------|----------|--------|------|-----------|--------|------|-----------|--------|
| | Male | Female | | Male | Female | | Male | Female |
| B1 | 4.3 | 4.2 | F1 | 3.7 | 3.5 | O1 | 3.6 | 3.7 |
| B2 | 4.3 | 4.3 | F2 | 3.5 | 3.3 | O2 | 3.8 | 3.6 |
| B3 | 4.4 | 4.3 | F3 | 3.4 | 3.7 | O3 | 3.2 | 3.9 |
| B4 | 4.5 | 4.2 | F4 | 3.6 | 2.9 | O4 | 4.1 | 4.0 |
| B5 | 4.2 | 4.5 | F5 | 3.2 | 3.4 | O5 | 4.1 | 3.9 |
| B6 | 4.1 | 3.8 | F6 | 3.7 | 3.5 | O6 | 4.0 | 4.0 |
| B7 | 4.1 | 3.7 | F7 | 3.4 | 3.8 | O7 | 3.9 | 4.1 |
| B8 | 3.6 | 3.4 | F8 | 4.2 | 4.2 | O8 | 3.6 | 3.9 |
| B9 | 3.4 | 3.5 | F9 | 4.5 | 4.3 | O9 | 3.7 | 4.2 |
| B10 | 3.4 | 3.3 | F10 | 4.4 | 4.4 | O10 | 3.9 | 3.6 |
| B11 | 3.2 | 3.2 | F11 | 4.1 | 4.1 | O11 | 4.2 | 3.8 |
| B12 | 3.5 | 3.9 | F12 | 4.0 | 4.2 | O12 | 4.3 | 4.0 |
| B13 | 3.7 | 2.9 | F13 | 4.3 | 4.1 | O13 | 4.1 | 3.9 |
| B14 | 3.4 | 4.2 | F14 | 4.5 | 4.3 | O14 | 3.8 | 3.7 |
| | | | | | | O15 | 3.9 | 4.1 |

According to the Table 7 provides an overall summary of the results from the questionnaire. As an example, it can be seen from questionnaire item coded B6 of “Behavioral” that the males Mean rating was 4.1 while the females Mean rating was 3.8, questionnaire item coded F12 of “Affective” that the males Mean rating was 4.0 while the females Mean rating was 4.2 and questionnaire item coded O2 of Behavioral that the males Mean rating was 3.8 while the females Mean rating was 3.6. From these score, we can say that both males and females rated OWAL favorably.

Differences in attitudes between PAL and OWAL

Table 8 shows that there is a strong positive tendency by students towards OWAL. It clearly appears that students prefer OWAL because they can get most of the diagrams required for school projects more readily from an Internet site than from a text book (B5, Table 8), they find the graphics on a Web site more appealing (F13, Table 8), students believe they can find additional information more easily from the Internet (B4, Table 8) and. Seventy-one percent of the students believed that OWAL will replace books in schools in the future (O4, Table 8) and 53 per cent of the students enjoyed the fact that OWAL has animations (F3, Table 8).

Table 8. Differences in Attitudes towards PAL and OWAL (N=46)

| Code | Questionnaire Item | Mean Rating | Frequency (%) | | | | |
|------|---|-------------|---------------|----|----|----|----|
| | | | SD | D | U | A | SA |
| B4 | If given a choice I would first search for a book to find information for a school project before I search for a Web Site | 4.3 | 0 | 7 | 9 | 38 | 47 |
| B5 | If given a choice I would get most of my diagrams for school projects from a text book than a Web Site | 4.4 | 0 | 6 | 10 | 30 | 55 |
| F1 | The Web Assisted activity terrified me | 3.6 | 3 | 7 | 38 | 26 | 25 |
| F2 | The colors on the Web assisted activity made it more interesting than the colors on the Paper Assisted activity | 3.4 | 4 | 18 | 34 | 27 | 18 |
| F3 | I preferred the Web Assisted activity instead of the Paper Assisted activity because it had animation | 3.6 | 4 | 8 | 37 | 27 | 26 |
| F5 | I felt more uncomfortable using the Web Assisted activity than the Paper Assisted activity | 3.3 | 6 | 9 | 35 | 28 | 25 |
| F6 | I found the Web Assisted activity more boring than the Paper Assisted activity | 3.6 | 4 | 6 | 38 | 27 | 24 |
| F8 | If I had a choice I would prefer to learn from a book than from a Web Site | 4.2 | 2 | 5 | 18 | 22 | 53 |
| F13 | I preferred the graphics on the Web Site better than the graphics on the Paper Assisted activity | 4.2 | 2 | 10 | 23 | 17 | 48 |
| O1 | The Web Assisted activity was easier to use than the Paper Assisted activity | 3.7 | 3 | 7 | 42 | 27 | 20 |
| O2 | The Web Assisted activity was more difficult to read than the Paper Assisted activity | 3.7 | 4 | 10 | 39 | 27 | 19 |
| O3 | The Web assisted activity was more difficult to understand than the Paper Assisted activity | 3.6 | 5 | 6 | 40 | 23 | 23 |
| O4 | Web Sites will take over Books in the future | 4.0 | 4 | 5 | 20 | 37 | 34 |
| O8 | Student learn more using Web Assisted activities than Paper Assisted activities | 3.8 | 2 | 8 | 42 | 25 | 24 |
| O10 | Finding your way around a Web Site is harder than finding your way around a book | 3.7 | 6 | 9 | 41 | 28 | 19 |

SD- Strongly Disagree; D-Disagree; U-Undecided; A-Agree; SA-Strongly Agree

Differences in attitudes towards OWAL between males and females

Table 9. Chi-Square Analysis of Gender Dependence and OWAL Attitudes (N=46)

| | Behavior | Affective | Cognition | CASS |
|-------------------------|----------|-----------|-----------|-------|
| Chi-Square | 0.514 | 0.190 | 0.005 | 0.136 |
| Asymptotic Significance | 0.498 | 0.679 | 0.853 | 0.606 |

Table 8 provides a summary of the relationship of gender to OWAL attitudes using Chisquare analysis. It indicates that there is no significant difference ($p < 0.05$) in gender, and the behavior, affective, cognitive and CASS based attitudes. Table 8 showed no significant difference in attitudes towards OWAL for males or females (all students perceived OWAL in a positive attitude).

RESULT

In this study, we have found a number of outcomes to the research question, What attitudes do business program students have about Online Web Assisted Learning (OWAL), as compared to paper assisted learning (PAL). OWAL activities motivates students better than PAL activities. There are no significant differences of students' attitudes between male and female.

Finally, it can be said that some students accept the use of OWAL to supplement their learning. The data indicate that OWAL classroom activities would aid in the learning process of students because students have positive attitudes towards the use of OWAL.

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