

AN EVALUATION OF WEB BASED INSTRUCTION IN VIEW OF THE TUTORS' AND STUDENTS' PERSPECTIVES

Dr. Yavuz ERDOGAN
Marmara University
Department of Computer Education
& Instructional Technologies
Istanbul, TURKEY

ABSTRACT

In today's world, it is acknowledged by almost all folks of life that the traditional educational institutions are inadequate in educating the growing population. This situation has triggered research into finding ways to provide economical and of high quality education to wider masses of people. Currently, web based instruction seems to be the point that has been reached to meet such a demand. In web based instruction, students' and tutors' perspectives play an important role in the facilitation of successful outcomes. Moving on from that, the aim of this research is to investigate web based instruction in view of the tutors' and students' perspectives. In order to achieve such an aim, face-to-face interviews were carried out with 10 tutors from the e-MBA Master's Degree Programme at Bilgi University, and with 10 students registered in the same programme. Nine semi-structured interview questions were used to investigate the participants' perspectives on web based instruction and the interview data were analyzed accordingly.

Keywords: Web based instruction, evaluation of web based instruction, on-campus tutors' opinions, on-campus students' opinions.

INTRODUCTION

The most important difference that has taken place in the world in the last few years is the rapid development and spreading of information technology in every field. It is accepted by all environments that information technology provides value in materialistic and moral aspects, and that is widely used in fields of education, economy, health, agriculture, social life, and entertainment (Uzunboyly, 2004). Advances in learning environment have provided students with a wide variety of teaching/learning alternatives that have expanded the educational process beyond the traditional classroom (Bennet et al. 2002, p.2379). Developments in web based learning have provided students with a wide variety of teaching/learning alternatives that have expanded the educational process beyond the traditional classroom.

In addition to the face-to-face mode of instruction students now receive instruction through teleconferencing, online and/or web-based instruction, e-learning, and other advancements currently taking place with telecommunications technologies. The advancements have been rapid and will continue to expand and impact our educational process (Bennet et al. 2002; Hooper, 2001; Kearsley, 2000; Schreiber & Berge, 1998; Trent, 2001).

In web based instructional systems, students are able to receive training without the need to go to school and spend time on the roads. People who live away from schools and who are bound to a place because of reasons such as job requirements, health problems and family commitments are provided with an opportunity to learn (Trollip ve Alessi, p.378; Bachman, 2002, p.6). As a result, the number of institutions that provide web based instruction is rising rapidly and presents an increase of 100% each year worldwide (Horton, 2000, p.8).

In web based instruction, increased student control and responsibility optimizes learning and makes it more effective (McGarth, 1998). In a well designed web based course students can be more successful than they would be in a classroom setting (Schutle, 1997; Tucker, 2000).

Many studies to date have demonstrated similarities between the effectiveness of web based instruction and traditional instruction (Tucker, 2000; Partrich, 2003; Gordon, 2003), as support provided by the web increases the quality of instruction and enriches the content. Hence, the individual is able to explore the subject matter in the range and depth s/he wishes to learn that is appropriate to her/his learning capacity (Nemli, 2004, p.686).

Apart from that, web based instruction displays great differences with the classical instruction in the students' interests, expectations and needs (Glenn, 2001). Therefore, generating solutions similar to the classical instruction to the challenges in web based instruction may generate poor outcomes. In our today's world, although there exists a huge tendency towards the use of web technologies for instructional purposes, the perspectives and expectations towards this new instructional setting have yet to be sufficiently researched (Arslan, 2002). Knowing the perspectives of the students and of the people who work in this setting would aid the effective organization and use of web based instruction (Kurubacak, 2000). Having said these, the aim of the current research is to investigate web based instruction in view of the tutors' and students' perspectives.

METHODOLOGY

Research Method

Qualitative methods were made use of in order to determine the perspectives of tutors and students for web based instruction. Qualitative research aims to investigate and understand the social facts within their own environment (Yıldırım and Şimşek, 2000 p.19). The focus here is to be able to understand the subject matter from the point of view of the participants and to put forth the social constructions and processes that make up those points of views.

Study Group

For the selection of the study group, "typical case sampling" method was used. In this kind of sampling, generally, individuals and institutions that hold the information on the subject matter are selected. The aim here is to have some idea on a new topic, innovation, and practice through the study of the typical situation (Yıldırım and Şimşek, 2000, p.73). Therefore, two different study groups were arranged for the study. The first group consisted of 10 tutors who were responsible for the e-MBA Master's Degree in Bilgi University, Social Sciences Institute in the 2005 academic year. The second study group consisted of 10 students from the same programme.

Data Collection and Procedure

Interview, which is the most common data collection method in social sciences (Briggs, 1986) was used as the data collection method. The interviews lasted 30-40 minutes each and were video recorded having gained consent from the authorities and the participants. The video interviews were then transcribed and analyzed in view of the research aims. The analytic unit used for the analysis of the data was the 'sentence'. The sentence is the most important tool that a researcher would use in developing themes and categories out of a qualitative data set.

Furthermore, the participants' answers were also categorised as positive, partially positive and negative. The views of the participants' were transformed into numerical data as 1, when they totally agreed with the question; 0.5, when they partially agreed and 0, when they didn't agree. For the purposes of digitizing percentage/frequency analysis were used. Hence, it became possible to represent the participants' thoughts on each question in percentages.

Based on expert opinions and the related literature, 9 semi-structured interview questions were prepared to elicit the participants' views on web based instruction. Semi-structured interviews allow the researchers to address questions that would elicit detailed explanations whenever it is deemed necessary (Alpay et al. 2003, p.303). The interview questions were as follows:

The questions that were addressed both to the students and tutors

1. If we were to compare web based instruction with classical instruction, what would you say?
2. Do you think the spreading of web based instruction is beneficial to the society?
3. How would you evaluate web based instruction regarding equal opportunities in education?
4. Do you think web based instruction allows for career improvement?
5. How would you evaluate the costs of web based instruction both for the institution and the student?
6. What do you think about the belief that web based instruction causes students to be asocial?

The questions that were addressed only to the students

7. Do you feel that you belong to the university you are a student of?
8. Are you able to easily communicate both with your tutors and your peers within web based instruction?
9. Are you able to spend enough time for yourself?

DATA ANALYSIS AND PRESENTATION OF THE FINDINGS

In this section, the analysis of the participants' answers is presented. As the focus of the study was on tutors' and students' perspectives, in order to maintain the meaning integrity in the statements, the speech from the video recordings were transcribed as precisely as possible. Each question was handled individually for the in depth and detailed analysis of the tutors' and students' perspectives.

A comparison of web based instruction with classical instruction

80% of the tutors' and 75% of the students' stated that web based instruction was⁸⁸

as effective as the classical instruction; however, that different criteria should be kept in mind in such a comparison. For instance, a tutor said;

'...you provide some content in web based instruction, and if the person is ready to receive that content, then it is effective. In fact, it can be said to be more effective in certain areas. But the students' attitudes to this learning environment are crucial.' And another tutor; *'...We have to consider the level of education. I believe it to be more effective for master's degrees. It can be effective if the subject matter is procedural, I mean if there are steps and if it is appropriate to the student's level. But it's quite difficult to have a dialectic environment on the web where the individuals can discuss.'*

Some of the students' views were;

'...Web based instruction is superior to classical instruction in certain settings, in others it has its drawbacks. I mean if I was to talk on average, I would say yes, it's as effective as the classical instruction, however, if were to leave out some of the shortcomings like the student profile, the school infrastructure, the efficiency of the system, and student motivation...';'...in fact it depends more on the learner. If the student is self-disciplined, if s/he has followed the lessons for purposes of learning I believe it to be effective...';'...if not at the undergraduate level I believe it can be as effective as the classical instruction at the postgraduate level.'

An analysis of the interview data showed that most of the participants considered web based instruction to be as effective as the classical instruction. This result is similar to many of the previous research carried out on the subject (Buchanan, 2000; Tucker, 2000; Partrich, 2003; Gordon, 2003). Additionally, it appears that the students need to have high levels of motivation in order to be successful in this type of instruction. Provided that the participants are sufficiently motivated, web based instruction can be as effective as the classical instruction. Alomyan and Au (2004) concluded in their research that motivation significantly explains for success in web based instruction.

An evaluation of web based instruction regarding the society

Almost all of the participants' argued that web based instruction is beneficial to the society. 95% of the tutors and 100% of the students felt this way. The tutors' views were as follows;

'...it will especially be an advantage in time and place for the people who can't maintain a steady education...';'...you get the chance to reach a considerable number of people via these instructional environments...';'...of course, people will be able to receive and certify any training they wish.'

Students, however, approached the topic from their own point of view and their comments included;

*'...if such an opportunity hadn't existed, I wouldn't have the opportunity to study a master's degree...';'...I think if something isn't certainly harmful to the society, then, it is beneficial to the society. We are not wasting our time here. The education we receive is as useful as at least*⁸⁹

an undergraduate degree...';...I try to be of help to the society with the training I am receiving here and I think I am'.

Both the tutors and the students jointly agreed that these instructional systems are to the benefit of the society, and they stated that they even should be increased in numbers. Web based instruction has a structure that outreaches the place and time limitations in education and facilitates easy access by mainly being a solution to the problems of capacity and tutor availability (Trollip & Alessi, 2001; Schutle, 1997). Therefore, it is considered as an important opportunity for the students who are not able to receive on-site education. In a related study, which had a sample of 157 students from 14 countries, 97% of the participants who were receiving online instruction stated that they believed web based instruction is beneficial (Chin and Chang, 2002). The results of the PhD thesis by Erdoğan also presented that 83% of the students argued for the idea that web based instruction is beneficial to the society.

Web based instruction and equal opportunities in education

15% of the tutors and only 5% of the students agreed to the statement that web based instruction prevents equal opportunities. As can be inferred from these results, most of the participants thought that web based instruction did not pose any problems against equal opportunities. One of the tutors commented that; *'...it even improves equal opportunities in education let alone prevents it, because it offers an opportunity to receive education to the people who do not have the chance otherwise.'* Another tutor said; *'...it eliminates inequality. People who work can benefit from it as well.'* Thanks to web based instruction, inequality in opportunities is reduced to the least through the balance it creates among different societies and groups. Many people, who do not have the opportunity to receive education either because of time or budget considerations, are provided with a chance for life long learning via web based instruction. This, in turn, helps equal opportunities to become more commonplace.

Opportunities for improving career in web based instruction

100% of the tutors and 85% of the students suggested that web based instruction offered opportunities to improve career. Some students stated that web based instruction is very useful and that the students who don't have the chance to improve their careers get a chance through web based instruction. *'...I attend the course from about 1000 km away. I had zero chance to pursue a master's degree from where I was. Frankly, this programme has been a very important opportunity!'*, one of the students said. And one of the tutors argued that; *'...Students who hold undergraduate degrees from 35 different cities and 63 different universities are registered in the e-MBA programme at Bilgi University. This is an opportunity. This variety is not even possible in the universities that provide classical instruction.'*

Owing to web based instruction, education is not the information received at a certain place, certain time and certain age anymore and it has opened its doors wide to anybody who wants to learn. Therefore, learning became a continuous activity. Via web based instruction, the students can both work and study at times that are convenient for them. This offers great opportunities for career improvement.

The cost of web based instruction

35% of the tutors and 65% of the students stated that the cost of web based instruction was high. It was observed that tutors and students thought differently about the costs. Tutors mainly considered the training-teaching processes and estimated web based instruction to be less expensive than classical instruction;⁹⁰

'...it is less expensive when compared to onsite education...';'...students' expenses are higher in classical instruction. There is no transportation, accommodation or catering costs in web based instruction. It can even be suggested that it even decreases stationery costs to a minimum...';'...it's not too bad regarding the registration fees. Of course this is because there are just a few web based instruction courses in our country. I suppose the costs would be more reasonable if more universities had online courses'.

The students, on the other hand, stated that the costs were high regarding the registration fees;

'...it is a lot higher than state universities. But it is cheaper than the courses of other private universities. We don't usually have extra costs that much...';'...in fact this kind of education can be provided at a cheaper cost. I guess it is because of the deficiencies in the infrastructure that they are that expensive...';'...I would have spent more money if it was a normal master's degree!'.

Without any doubt, some of the costs of classical instruction are reduced in web based instruction (Horton, 2000, p.20). Web based instruction is anticipated to cost around 40% to 60% cheaper than classical instruction when sufficient number of students could be enrolled (Hall, 1999). In classical instruction two thirds of the costs are spent on transportation and rents (Horton, 2000, p.24).

Likewise, the students' time spent on transportation and their being away from production when they are in the classroom can be considered as costs as well. When all these factors are taken into consideration, it might be suggested that web based instruction costs less than classical instruction.

The effects of web based instruction on socializing

40% of the tutors and 30% of the students stated that web based instruction impaired the social life of the students. For example, one of the tutors said;

'...if the only place that the students can socialize is the school, then, web based instruction impairs the social life'. Although one of the tutors stated that;'...web based instruction keeps the social life in the background'; other tutors thought differently;'...the virtual environment is another type of socializing, we cannot claim that the students do not socialize...';'...it cannot impair the social life in a master's degree!' The students, on the other hand, did not agree and stated that the social life in the master's level should not be attributed to schools. In addition, some students mentioned the need to differentiate between socializing and a lack of communication;'...yes, there is a problem for sure! Though, it would be better to call it a lack of communication not a problem of socializing'.

Do you feel that you belong to the university?

This question was only asked to the students as it investigates the students' psychological states. Only 55% of the students felt that they could identify themselves with the university. Some students' statements included;

'...as I am not here physically I feel like a guest'; '...identifying oneself with the university is a little bit psychological of course, it is as if we are strangers to each other because we are not able to have eye contact with our friends and tutors...'; '...frankly, it is not like our undergraduate life. It can be because we are away from each other.'

This result is quite important for the research findings, because, although most of the students commented positively on web based instruction, they didn't feel themselves as part of the environment. The reason originates from the fact that students are physically in different places. In web based instruction, for a student to feel belonging to the University of Study, s/he has to be willing and goal-oriented, in other words has to be 'a student'.

Communicating in web based instruction

40% of the students stated that they couldn't communicate with their tutors and friends easily. The students said that they couldn't have the communication they desired as most of them were working. While one student argued that;

'...at some point the lack of face-to-face communication becomes apparent', the other said; '...students are strangers to each other. I don't even know the names of my friends, and this makes us difficult to communicate'.

Students also expressed their ideas that communication in the virtual environment is different from face-to-face settings and not as effective as they would like it to be. In web based instruction, synchronous and asynchronous communication environments such as discussion groups, chat channels and video conference allows for continuous and effective communication between tutors and students, among students and among tutors. Discussion in online classrooms tend to be deeper and more memorable, because the students have an opportunity to think the words they put into writing in more detail and this facilitates longer retention. Equally, participation in synchronous discussions has been observed to be in greater amounts than that is in classical educational settings, because physical presence in the face-to-face settings affects the active participation of some students negatively. This situation is reversed in web based instructional settings (Smith, Ferguson and Carl, 2001); in their study Ostiguy and Hoffer (2001) investigated the student-tutor interaction in classical and web based instruction. The students' views presented that interaction in web based instruction was higher than that is observed in classical instruction.

Being able to spend enough time for oneself

This was a question asked only to the students and 50% of the students stated that they could, and the others that they couldn't due to web based instruction. Some of the students' view included;

'...as the instruction is not in a classroom setting, I can only study after I come⁹² home in the evenings or in my free time...'; '... I think the student's work load in

this environment is much more, even so that we are expected to do everything. No time is left for me after the homework!...';...in this system we are assigned more projects than the classical instruction, I always struggle to complete the homework in my spare time. Thus I am left with less time to spend for myself'.

The student profile in web based instruction consists mainly of students on employment. The students usually have to study in their free time. Therefore, the time they can spend for themselves is reduced considerably (Erdoğan, 2005, p.155). Besides, contrary to the general belief, in web based instruction more time is needed for effective learning (Bohley, 2002). Thus, the students need to spare more time to their studies and as a natural consequence the time the students can spare for themselves decreases.

DISCUSSION and CONCLUSION

As indicated by the results, most of the tutors and students in web based instructional settings agree that web based instruction is effective and beneficial. Both the tutors and the students stated that web based instruction did not prevent equal opportunities and provided a chance for career improvement. However, some students explained that they couldn't identify themselves with their university of study and couldn't experience the communication environment they desired when compared with classical instruction.

In web based instruction, it is a fact those students' interests and needs vary greatly when compared with the traditional learning approaches (Glenn, 2001). Therefore, trying to find solutions to the students' problems that are similar to the traditional learning approaches would yield poor results. Apart from that many studies until recently have concluded that web based instruction could be as efficient as the classical instruction (Buchanan, 2000; Tucker, 2000; Partrich, 2003; Gordon, 2003). If sufficient support is provided, similar success levels can be achieved in web based instruction as in classical instruction. This kind of interpretation would not mean that web based instruction is an alternative to classical instruction, but web based instruction is an alternative solution to the education problem and the number of the institutions that provide web based instruction around the world has been increasing at a rate of 100% each year (Horton, 2000, p.20).

In developed countries, as this fact is being thoroughly analyzed, the investment in web based instruction doubles itself each year. Many graduate degrees are even being preferred if they are web based, because web based instruction saves both time and money compared to classical instruction. Moreover, time and money are not the fundamental problems in Turkey's education system. 'The right to education', one of the basic rights stated in national and international agreements, cannot be sufficiently provided to all students. There is a huge demand, though the supply is relatively insufficient.

Only 20% of the students at the age of higher education are able to receive a university degree. This forces the universities to find additional resources and generate alternative solutions (Timur, 2000, p.253).

It is widely accepted by almost all folks of life that the traditional educational⁹³ institutions are insufficient in offering education to the increasing population. As a

consequence, this has initiated a search for ways of providing qualified education in an economic way, in a variety of topics, and to a wider audience. The point that has been reached for today in order to meet the demand is web based instruction (Erdoğan, 2005), because web based instruction can reach to huge numbers of students which cannot even be imagined in traditional approaches (Karasar, 1999, p.135).

Web based instruction can either be synchronous or asynchronous. The students do not have to work in the time slot imposed on them (Bachman, 2002, p.6). For example in formal education systems the topics have to be studied by the students on that specific day, in that specific classroom and in that specific term. The topics and subjects cannot be studied on a different day or in a different place. The students have to be in the specified classroom in that term, and even in the specified week and time (Arslan, 2002, p.34). On the other hand, web based instruction frees the students from space and time. In such a setting the students are to follow the instructional content at their own learning pace and needs. Furthermore, some of the costs of classical instruction are reduced in web based instruction. When a sufficient number of students is reached, web based instruction is estimated to cost 40 to 60% less than the classical instruction (Hall, 1999). Two thirds of the costs in classical education are spent against transportation and facility rents (Horton, 2000, p.20). Likewise, the students' time on transportation and their being away from production can also be considered as economic costs. When all the above points are taken into consideration, it could be claimed that it would cost less to deliver web based instruction.

BIODATA and CONTACT ADDRESSES of AUTHOR



Yavuz ERDOGAN is graduated from Atatürk Education Faculty at Marmara University in 1998. He received M.A. degree on Mathematics Education in 2000 from Marmara University and received Ph.D. on Education Management and Planning in 2005 from Marmara University. He prepared the dissertation namely "Evaluation of Web Based Higher Education According to Students' Academic Achievements and Attitudes". He is currently a lecturer in the Department of Computer and Instructional Technologies at Marmara University in Turkey.

Yavuz ERDOGAN

Department of Computer and Instructional Technologies,
Atatürk Education Faculty, Marmara University, Istanbul, Turkey
Phone: (0212) 345 9090#214
Email: yavuzerdogan@gmail.com

REFERENCES

Alomyan, H. & Au, W. (2004). Exploration of instructional strategies and individual difference within the context of web-based learning. *International Education Journal*, 4 (4), 86-92.

Arslan, A. (2002). Web destekli bilgisayar öğretiminde tasarım kriterlerinin değerlendirilmesi [Evaluation of designing criteria in web based computer instruction]. Unpublished thesis, Marmara University, Istanbul.

Bachman, K. (2002). Corporate e-learning: exploring a new frontier. WR Hambrecht + Co Issues E-Learning Industry Report, San Francisco.

Bennet, E., McKenzie, B. & Waugh, M. (2000). Assessing distributed learning: student perceptions and future directions. Society for Information Technology and Teacher Education, International Conference Papers, 2002 (1), 2379-2382.

Bohley, K. (2002). The student voice: results of an attitudinal survey. Society for Information Technology and Teacher Education International Conference, 2002 (1), 1973-1977.

Briggs, C. (1986). *Learning How to Ask: A Sociolinguistic appraisal of the role of the interview in social science research.* Cambridge University Press, Cambridge.

Buchanan, E., Brown, M., Casanova, J., Wolfram, D. & Xie, H. (2000). Web-based and traditional instruction: a systematic study of student and instructor perceptions from a graduate MLIS program. *Teaching with Technology Today*, 7 (1), 655-656.

Chin, K. L. & Chang, V. (2002). The use of web-based learning in culturally diverse learning environments. The Sixth Australian World Wide Web Conference, Cairns, Australia.

Erdogan, Y. (2005). Web Tabanlı Yükseköğretimin Öğrencilerin Akademik Başarıları ve Tutumları Doğrultusunda Değerlendirilmesi [Evaluation of Web Based Higher Education According to Students' Academic Achievements and Attitudes]. Unpublished Dissertation, Marmara University, Istanbul.

Glenn, A. (2001). A comparison of distance learning and traditional learning environments. Unpublished Dissertation, Faculty of The Graduate School of Texas A&M University, Texas.

Gordon, D. (2003). Learning effectiveness: a comparative study between web-based and traditional on-campus courses. Unpublished Dissertation, University of Nevada.

Hall, B. (1999). Mastering online enterprise training: a survival guide. (Erişim Tarihi: 01.04.2005). www.pathlore.com/archives/bhallcoverstory.html

Hooper, K. B. (2001). Is the Internet a classroom? *Tech Trends*, 45 (5), 35-43.

Horton, W. (2000). *Designing web-based training.* Wiley & Sons Computer Publishing, Inc.

Karasar, Ş. (1999). Sanal yükseköğretim [Virtual Higher Education]. Unpublished Dissertation, Anadolu University, Eskisehir.

Kearsley, G. (2000). *Online education: learning and teaching in cyberspace.* US: Wadsworth Publishers.

Kurubacak, G. (2000). Online learning: study of students attitudes towards web-based instruction. Unpublished Dissertation, University of Cincinnati.

McGarth, B. (1998). Partners in learning: twelve ways technology changes the teacher-student relationship. *Technological Horizons in Education Journal*, 25 (9).

Nemli, E. (2004). e-Öğrenme: Kurumsal Eğitim ve Geliştirilmede Bir Devrim[e-Learning: A Revolution in Institutional Education and Development]. First International Conference on Innovations in Learning for the Future, Istanbul.

Partrich, D. E. (2003). An analysis of learning style and grade achievement in relation to web base and on-campus courses. Unpublished Dissertation, Southwestern Baptist Theological School, Texas.

Scheiber, D. A. & Berge, Z.L. (1998). *Distance training*. San Francisco, CA: Jossey-Bass.

Schutle, J. G. (1997). Virtual teaching in higher teaching, CASO's Internet University (visited on 24.01.2005) www.csun.edu/sociology/virexp.htm

Smith, G. G.; Ferguson, D. & Caris, M. (2001). Teaching college courses online vs face-to-face. *THE Journal*, 28 (9), 18-15.

Timur, T. (2000). *Toplumsal Değişme ve Üniversiteler [Social Change and Universities]*, Imge Bookstore, Ankara.

Trent, D. (2001). *Welcome to cyberschool*. New York, NY: Rowan & Littlefield Publishers, Inc.

Trollip, S.R. & Alessi, S.M. (2001). *Multimedia for learning: methods and development*. 3rd Edition, Allyn & Bacon, Massachusetts.

Tucker, S. Y. (2000). Assessing the effectiveness of distance education versus traditional on-campus education. Annual Meeting of the American Educational Research Association, New Orleans, Eric No: 443 378.

Ostiguy, N. & Haffer, A. (2001). Assessing differences in instructional methods: uncovering how students learn best. *Journal of College Science Teaching*, 30(6), 370-374.

Uzunboylu, H. (2004). The effectiveness of web assisted English language instruction on the achievement and attitude of the students. World Conference on Educational Multimedia Hypermedia and Telecommunications, 2004 (1), 727-733.

Yildirim, A. & Şimşek, H. (2000). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri [Qualitative Research Methods in Social Sciences]*, Seckin Publishing, Ankara.