ELSEVIER

WCES-2010

Motivating factors in online courses

Kıymet Selvi[a] *

[a]Faculty of Education, Anadolu University, Eskisehir, 26470,Turkey

Abstract

This study aims at determining the factors that increase the motivation of students in an online course conducted by a researcher. In this framework, the students were asked to explain their opinions about the factors increasing their motivation and what can be done to increase their motivation. The research results show that learning-teaching process, competencies of instructors, participants' attention, online learning environment/technical infrastructure and time management affect motivation in the online courses. It is also stated that online learning environment/technical infrastructure, learning-teaching process and measurements and evaluation should increase their motivation.
© 2010 Elsevier Ltd. All rights reserved.

Keywords: Online course; e-learning; virtual classroom; motivation; technologies.

1. Introduction

Development of information and communication technologies (ICT) leads to major changes in learning-teaching environment. Both information and communication technologies (ICT) and the Internet have been important as contemporary educational changes and they support more flexible, more electronically distributed, more open, and more learner-controlled forms of learning (Bossu, Smyth & Stein, 2007, 48). e-learning or online learning can create new learning-teaching environments in the virtual world. The e-learning system is composed of the pedagogical, technological and organizational components and e-learning environment must include the three components in order to achieve the successful implementation and it needs to try to create balance between them (Jochems, Merriënboer & Koper, 2004; Garrison and Anderson, 2003).

It is known that some of the components of learning environment affect learner behaviors during the learning-teaching process in both face to face and virtual learning environments. Motivation, that activates students who wants to learn more than other students, is the main component of the learning environment. Motivation can be categorized as intrinsic and extrinsic motivation. Both intrinsic and extrinsic motivation of learning is very important in students' engagement in the learning experiences. Intrinsic motivation is a kind of internal energy coming from the individualistic base that supports interest, self-requirement, self-determination, self-regulation and autonomy of learning. Extrinsic motivation can be defined as external factors that stimulate learners and these

* Kıymet Selvi. Tel.: +222 330 05 80; fax: +222 330 05 79
E-mail address: kselvi@anadolu.edu.tr

external factors can be behaviors of teachers, learning topics, learning-teaching strategies, teaching-learning process, interaction between the students and teachers and so on. Extrinsic motivation is the more suitable way that encourages students to commit themselves to instructional goals to increase their achievement such as earning a grade or degree (Selvi, 2006; Styer, 2007).

Motivation is the best variable that affects students' learning. Thus, the students who are in the virtual learning environment need external motivation in order to stimulate their learning and to support their participation in virtual learning environment. The main question in this paper is what the external motivation factors in the virtual learning environment are. In order to answer this question, this study tried to determine the motivation factors in online courses that were carried out on e-learning system for the PhD students.

1.1.Process of online course

The course is applied to six different e-learning groups and each group is composed of fifteen to seventeen PhD students. Two tutors carry out all studies in synchrony in the virtual classroom and Form of Discussion Platform follows asynchrony formats. Virtual classroom and Form of Discussion platform are the tools of the online course that is the tools of the WebCT. Breeze environment is used for the virtual classroom that is realized with synchronous online course format, for almost one and half-hours per week. It is based on interaction among students, instructor, contents and documents through sharing of oral and written communications of teachers and written communication of the students. At the beginning of the course, face-to-face meeting between the students and tutors is realized to inform students about the frame of the online course process, written documents on course webpage and technical information about WebCT.

Two instructor' model, called as "the first and second instructed model" was implemented in these courses. This model was developed by the researchers (Selvi and Çardak, 2009). The first instructor gives voice and text messages and carries out visual contact with the classroom. The second instructor also joined the virtual classroom and as a mentor s/he used only text messages to follow the virtual classroom, gave feedback, provided extra information, reinforcement, asked questions, and shared some ideas with the first instructor and the students. Some of the learning and teaching activities such as homework, group and individual studies and discussion of the topic of week were realized on the Form of Discussion setting so that 24 hours reflection was possible during the day except for the midterm and final exams of the course.

1. Method

Opinions of the students were collected via two questions directed to students who attended six virtual class applications in three different terms in 2007-2008 and 2008-2009 academic years. At the end of the term, two main phenomenological questions were asked for analysis of the student's perceptions of the online learning. The first question was: "What are the motivating factors for the online course being conducted? Please explain briefly". With this question, students were asked to write the motivating factors for the course they were attending. The second question was "According to you, what should be done to increase the motivation in an online course?". With this question, students were asked to explain the motivating factors that did not exist in their online courses but should exist in the system. With this question, students were especially asked to reflect their ideas about the motivating factors in online courses in the future. The students' opinions were collected via a written form and content analysis of the acquired opinions was made. Opinions were taken from 60 PhD students attending virtual PhD courses.

Document analysis was applied by means of a qualitative data analysis technique. Data analysis was realized in four main stages. At the first stage of the data analysis, personal perceptions are bracketed from the written texts of the students in order to reflect the personal phenomenological perceptions and the data correctly as possible. At the second step, students' reflections were analyzed by means of content analysis. The themes occurred based on the students' perceptions. The second stage of data analysis was carried out to identify themes, categories and patterns based on the writings of the participants. In the third stage for reliability, the researcher's and experts' coding and agreements and disagreements were evaluated and compared. Reliability of the study was found as 90 %. In the fourth stage, the thematic results were related to motivation factors and motivation factors could be reviewed based on the frame of the online course that is pedagogical, technological, organizational characteristics of the e- learning system.

2. Results

The phenomenological perceptions of the students are reflected by means of the two questions as mentioned above. The authentic perceptions of students are presented in the Table 1 and Table 2 below.

3.1. Students' reflection about motivation factors in online courses

The students' perceptions related to the first question, "what are the motivating factors for the online course being conducted?", were grouped as themes and sub-themes depending on the students' motivation factors for e-learning. Themes and sub themes are presented in Table 1.

Table 1. Students' reflections about motivating factors in online courses

Themes and sub-themes	
Learning-teaching process	
• Freedom of discussion and learning during the online courses	40
• Giving feedback and correction immediately	37
• Expression and resolution of learning problems about course easily	36
• Effective use of Form of Discussion Platform	36
• Providing contemporary, original and practical examples	26
• Conduct of courses by discussions and question-answer method	26
• Use of the method of brainstorming during the courses	26
• Containing a comprehensive summary of the course in the web page	22
• Enjoyable and cheerful virtual classroom environment	21
• Mutual trust and respect in the learning environment	19
• Questions, asked during the courses, being interesting and related to everyday life	17
• Association and connection of what is learnt	16
• Course is planned systematically	15
• Constant encouragement of students to produce new ideas	11
• Obligatory attendance to the course	10
• Encouragement of students to investigate and research	7
• Collective decision with students the title of the week for Discussion Form	5
Total	370
Roles of instructors	
• Course conducted collaboratively by the two instructors with two different roles	58
• Facilitation of learning by means of the instructors' collaborative working	53
• One of the instructors continuously counseling the students' studies	47
• High participation in the course of the instructors	45
• Effective course management by the instructors	40
• Students join the course prepared and equipped	35
• The instructors being enthusiastic and curious related to the course	29
• The instructors calling the students name by mentioning the course?	17
Total	324
Participation and attention	
• Participation being open and encouraged	55
• Use of different signs such as * ☺ to reinforce communication in the learning environment	39
• Simultaneous expression of ideas by every one	33
• Well planned and supported participation in lessons	29
• Use of clues in a way that encourages participation	27
• Frequently drawing the attention of students	25
• Consistently taking the students' opinions about the subject	25
• Giving rewarding of students by instructors	25
• Frequent use reinforcements in the class	24
Total	282
Online learning environment/ technical infrastructure	
• Freedom of access to lesson from everywhere	57
• Written and oral communication in the virtual class	35
• Participation can be easiest in the Form of Discussion Platform	20
• Easy involvement in classroom activities by means of internet	19
Total	131
Time management	
• Well time management in the lesson	57
• Effective time use for the virtual classroom	36
Total	93

As it is seen in Table 1., 30.8 % (370) of the participants' writings about motivating factors of online course is related to the "learning-teaching process. Primary three factors increasing motivation in the learning-teaching setting

of the online courses such as freedom of the learning-teaching setting, giving feedback, sharing and resolution of learning problems. Obviously, these factors are the characteristics that improve the quality of the teaching. 27 % (324) of participants' statements with regard to the motivating factors of online course is about the "roles of instructors" and this is the second theme related to the motivating factors. In terms of the roles of the instructors, three primary factors increasing motivation are put forward such as system encompassing two instructors with different roles, facilitation of students learning collaboratively and continuously counseling the students' studies. These are the instructors' characteristics related to their roles in the lesson. "Participation and attention", with 23.5 % (282), is the third important motivating factor of the online course Simultaneous expression of students' ideas, well planned and supported participation and use of clues that encourages participation comprises the primary three factors increasing the motivation in online courses. These results point out that the most important factor increasing the motivation is the participation. 11 % (131) of the statements about the motivating factors of online course is related to "online learning environment/technical infrastructure" and with this percentage this factor is the fourth one. Freedom of access and easy participation to lesson from everywhere, written and oral communication in the virtual class is indicated as the primary factors increasing the motivation in the online courses. 7.7 % (92) of the statements of students comprises of the last motivating factors related to "time management." Only the two ideas such as "well time management in the lesson and effective time use for the virtual classroom"

Students' writings show that five important motivating factors of online courses, learning-teaching process, roles of instructors, participation and attention, online course environment/technical infrastructure and time managements are very important in motivating students during the online course studies. All of these factors can be defined as extrinsic motivation factors for the students in the online learning environment.

3.2. Students' reflection about the motivating factors in online courses in the future.

This study also aims at supporting the development of online courses so that learners will be motivated more in future online course. The students' perceptions of the second question, "According to you, what should be done to increase the motivation in an online course? were grouped depending on the students' reflections about the second question. Themes and sub themes are presented in Table 2.

Table 2. Motivating factors will increase the students' motivation in an online course

Themes and Sub-themes	
Online learning environment/Technical infrastructure	
• Getting better level technical infrastructure	33
• Solving problems of cut offs in the oral and written	32
• Accelerating the speed of oral and written communication	30
• Providing the technical support by which visual	22
Total	102
Learning-teaching process	
• More effective use of Form of Discussion Platform	15
• Conduct of courses based on case studies	12
• Putting the detailed content of the course, just like a book	
• Conduct of courses comprising of more discussions	7
• Providing more communication and collaboration	5
• A students can be responsible from course management	5
• Applying the invention learning-teaching approach	4
• Extending the time of the course conducted interactively	3
Total	76
Measurement and evaluation	
• Giving the exams by online environment	12
• Giving of quizzes by online environment at the end of the	9
• Putting the questions as an examples for face to face	7
• Appling alternative measurement and evaluation	5
Total	33

As it is seen in Table 2, 48 % (102) of the writings of the participants is related to the technical infrastructure being at a better level, repairing cut offs in the oral and written communication and accelerating the speed of oral and written communication. It is stated that the better the technical infrastructure is, the higher the motivation of students will be. It means that current conditions of technical infrastructure can decrease the motivation of students. The process of the course, with 33 % (76), is the second important factor that increases the motivation in an online course. Students mentioned certain important points related to the process of the course: Form of Discussion

Platform, more effective use of Form of Discussion Platform conduct of based on case studies, putting the detailed content of the course, just like a book section, to the web page. "Measurement and evaluation", with 16 % (33), is the third motivation factor that should be improved according to students' views. Students believe that some new regulations such as conduct of exams online, conduct of quizzes online at the end of the course and putting the sample questions of the face to face exams in the web page could help increasing students' motivation.

Students' writings show that three important factors of "Online learning environment/ technical infrastructure, process of the course and measurement and evaluation" are very important to motivate students during online course studies. All these factors can be defined as extrinsic motivation factors for the students.

3. Discussion

e-learning system based on flexibility, deliverability, freedom and independency of learning is the main feature of online learning environments. Flexibility is related to the accessibility of e-learning and refers to flexibility of location, time and space. Learners feel comfortable while reaching the learning-teaching environment at any time from any where. If we analyze the results of this research, it is seen that learning-teaching process and online course environment/technical infrastructure (seen in Table 1), learning-teaching process and measurement and evaluation (seen in Table 2). are related to flexibility.

If we analyze the results of this research, learning-teaching process, roles of instructors and online course environment/technical infrastructure (seen in Table 1) and learning-teaching process, environment/technical infrastructure and measurement and evaluation (seen in Table 2) are related to deliverability. It can be said that deliverability is the most important factor of motivation for the students in online learning environments. It is clearly seen that independency of learning and freedom of learning are other characteristics of online learning environment and they stimulate and enrich learning. The research results clearly point out that independency and freedom of learning can create motivation in an online learning environment and this can be seen in Table 1 including the sub-themes of learning-teaching process and online learning environment/technical infrastructure and in Table 2 including the sub-theme of measurement and evaluation.

Sass (cited in Styer, 2007) stated that factors such as teacher's enthusiasm, relevance of course materials, well-planned and organized class sessions, instructor's expectations at an appropriate difficulty level, students' active involvement in classroom learning, use of various instructional techniques used, warm and friendly teachers, and use of real, concrete, and clear examples motivate students. If we compare the results of this study and the results of Sass's research, it is clearly seen that there is very high coherence between the two researches' results. For example, according to Sass's research results, teacher's enthusiasm, warm and friendly teachers motivate students. Similarly, in this research students stated easy expression and resolution of learning problems about course as a motivation factor.

Based on the idea that various situations related to the learning-teaching environment increase the motivation, the factor that will increase the motivation most is the learning-teaching process as can be seen in Table 1. It is a striking result that the term referring to the highest motivation component and mentioned by students is related to freedom. This result is in a close relation with situations such as flexibility, deliverability, freedom and independence which are accepted as the most important advantages of use of online environments. This result is also in line with the idea of "freedom of access to lesson from everywhere" which is in the first line in the sub-theme of environment/technical infrastructure and mentioned as a motivation factor by almost all students.

Another important result of this research is related to role of the second instructor who design and operate the whole virtual learning system. The motivating factor of "roles of instructors" is the second important motivating factor as seen in the Table 1. This means that the model of second instructor works very well in increasing the motivation of students. The model of second instructor is the main characteristic of this courses and researchers try to develop new models of virtual learning-teaching environment that are based on the second instructor ideas. Effectiveness of the second instructor model has been analyzed in another study (Selvi & Çardak. 2009) and will also be discussed as a new model of online learning environments in other studies. Results of this research might be verified by the researchers who believe that the second instructor model improves instruction among students, teachers and learning topics by means of motivating students. With regard to the roles of instructors, almost all students stated "collaborative conduct of the course by the two instructors with two different roles" as increasing motivation and this clearly shows that the method of second instructor increases motivation.

The most interesting results based on the answers to the question of "According to you, what should be done to increase the motivation in an online course?" is stated within the sub theme of teaching-learning process. These

results are "providing more communication and collaboration between students" and "every week assigning a student the task of managing course". Moreover, these results are about students taking more responsibilities in the online environment. Although number of the students who stated these characteristics as important factors of increasing motivation is limited (seen in Table 2), these characteristics should be taken into consideration.. These characteristics, insufficient student roles, social and shared learning environment are emphasized because they will increase the motivation of students.

As educators and designers of virtual learning-teaching environments, we need to clarify the motivation factors in an online course. It is known that motivation is a central aspect in the learning-teaching process. It is obvious that the higher the motivation level is, the better the attention, engagement and learning will be. For this reason, analysis of the motivation factors is very important to improve the learning-teaching process in the online courses. Results of this research show that the extrinsic motivation factors increase the students' motivation in an online learning environment. Thus, motivation factors that affect students' success in e-learning need to be investigated and understood better. The results of this research will also help educators, who plan, organize and deliver a qualified e-learning instruction, to improve students' learning.

4. Conclusion and Recommendation

Teacher's enthusiasm, warm and friendly teachers, the roles of instructors is the most important factors for creating of motivation of online course. All most all students stated that collaborative conduct of the course by the two instructors with two different roles is increasing motivation. The research results clearly point out that students' reflections about flexibility are main factors of motivation for online courses. Deliverability is another important factor of motivation for learning in the e-learning environment. Independency and freedom of learning can create motivation in an online learning environment. Relevance of course materials, well-planned and organized class sessions, students' active involvement in classroom learning, use of various instructional techniques, use of real, concrete, and clear examples can motivate the students. The most interesting results about the second question that providing more communication and collaboration between students It means that students want to take more responsibilities in the online environment. Three important factors such as online learning environment/ technical infrastructure, process of the course and measurement and evaluation are very important to motivate students during online course studies.

References

Alshara, O. & M. Alsharo. (2007). E-learning and the educational organizations structure reengineering (EOSR), *iJET International Journal of Emerging Technologies in Learning,* 2, 1-5, (online) from www.i-jet.org.

Bye, B.; Pushkar, D. & M. Conway. (2007) Motivation, interest, and positive affect in traditional and nontraditional undergraduate students. *Adult Education Quarterly,* 57, 141-158.

C. Bossu, C.; Smyth, R. & S. Stein. (2007). Academic professional development for effective e-learning: A possible framework for Brazil. *International Journal of Emerging Technologies in Learning, 2*, 48-53, (online) from www.i-jet.org.

Jochems, W.; Merriënboer, J. V & R. Koper. (2004). *Integrated e-learning : implications for pedagogy, technology and organization,* New York: RoutledgeFalmer.

Garrison, D. R. & T. Anderson.(2003). *E-learning in the 21st century: a framework for research and practice*, London: RoutledgeFalmer.

Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers.* New York: Association Press, (online) from (http://fohweb.macarthur.uws.edu.au/ot/infosdl.htm)

Kaufman, D. M. (2002). Teaching and learning in higher education: Current trends, retrieved from http://www.sfu.ca/lidc/research/kaufman/LifelongLearning.html.

Sammour, G. N. (2006). E-learning Systems Based on the Semantic Web, *iJET International Journal of Emerging Technologies in Learning*.1 (1), 1-7, (online) from www.i-jet.org.

Selvi, K. (2006). Learning and creativity. In A.T. Tymienecka (Ed.), Analecta husserliana: The yearbook of phenomenological research (351-369), Dordecth: Springer.

Selvi, K. & Ç. S. Çardak. (2009). Evaluation of the "second instructor application" in synchronous discussions in an online course: A case study at Anadolu University,Turkey. *The International Journal of Learning*, 16, 545-558.

Styer, A. J. (2007). A grounded meta-analysis of adult learner motivation in online learning from the perspective of The learner, unpublished dissertation thesis is of doctoral, Capella University, retrieved from *digital.library.unt.edu/permalink/meta-dc-9798:1.*