



Lecturer-Student Communication in Blended Learning Environments

Aynur GEÇER^a

Kocaeli University

Abstract

Blended learning is a flexible approach, which with developing technology, assists in the maintenance of education applications both in the face-to-face environment and on the web. The present study was conducted to determine the perceptions of students who took the Computer-Assisted Mathematics Instruction course about the roles and responsibilities of lecturers and students in blended learning (BL) environments; moreover it was aimed to reveal the student opinions about lecturer-student and student-student communication. The opinions of 4th grade mathematics teaching students were obtained using a semi-structured questionnaire containing open and close-ended questions developed by the researcher and a scale to assess the students' satisfaction with BL environments. The students stated their opinions about leadership, guidance and modeling roles of lecturers who gave lessons in BL environments. Engaging the students in the topic were cited among the responsibilities of lecturers. When their opinions about roles and responsibilities in BL environments were examined, it was observed that the students were aware of their responsibilities for their own learning; they were active and would research a topic; they had a questioning approach to their studies, and they worked hard.

Key Words

Blended Learning, Lecturer-Student Communication, Student Satisfaction.

The dazzling developments and changes being experienced today in science and technology affect, develop and change education as in every field. New paradigms have appeared in learning and teaching processes as a result of these changes.

One is blended learning (BL) which is a learning environment that combines the advantages offered by the web-based computer-assisted learning environment and face-to-face learning (Osguthorpe & Graham, 2003). Face-to-face education environment provides more opportunities for the social interaction which students need to guide them through their learning while the web-based learning environment provides the time and place flexibility which is not possible in the classroom (Abate, 2004). Students are supported by the learning materials provided by the web-based instruction when they are out of the classroom and they can continue their face-to-face education in the BL environment within a certain timetable (Dabbagh & Ritland-Banan, 2005). According to Driscoll (2002), BL is spreading worldwide and studies conducted revealed that academic achievements of students in

^a Aynur GEÇER, Ph.D., is currently an assistant professor at the Department of Computer and Instructional Technologies Teaching. Her research interests include the teacher-student communication, learning styles, web-based training, learning theories, constructivism, distance education, individualized instruction. *Correspondence:* Assist. Prof. Aynur GEÇER, Kocaeli University, Faculty of Education, Department of Computer and Instructional Technology, Kocaeli/Turkey. E-mail: akolburan@kocaeli.edu.tr Phone: +90 262 303 2468.

a BL environment are higher than students in traditional face-to-face learning and distance learning environments (Buck, 2008; Ellez & Sezgin, 2002; Futch, 2005; Ng, 2002; Tuckman, 2002). According to one study, students in BL environment were seen to more easily put into practice the theories they have learned (Davies, Lindfield, & Couperthwaite, 2005). It appears that the most efficient approach for learning-teaching processes is neither the use of only face-to-face instruction methods nor only web-based methods; but, it is the combination of both these approaches by taking their most attractive aspects that produces the most effective approach (Gülbahar, 2005). Drucker (1996) states that the people who can reveal a student's strengths, improve his skills and direct him to success are the teachers who are mostly in the position of supervisor and adviser. Gates (1999) points to the role of teachers in learning-teaching processes; and states that teachers who bring synergy to the classroom, are creative and establish strong relations with children can be successful in their professions.

Blended learning, which is a relatively new learning approach, has the quality to have an influence on teachers, students and instruction activities (Ünsal, 2010). In the web-based communication established between students and the teacher, the teacher's reassuring informal approach and his technical support can be provided by a high level of interaction (Tu & McIsaac, 2002). Students and teachers are separated from each other in terms of place; and learning is realized non-simultaneously (Cornell & Martin, 1997). As stated above, student-student and teacher-student communication are one of the most important factors which affect students' learning (Arbaugh, 2002; Irons, Jung, & Keel, 2002). Accordingly, the following questions are raised concerning; the student-student and student-lecturer communication in BL environments; the environments in which students are able to establish easier communication, and what problems are experienced by the student in BL environments. When the studies conducted about BL in Turkey are examined, it is seen that generally students' opinions were ascertained about BL environments (Akkoyunlu & Soylu, 2006, 2008; Altun, Gülbahar, & Madran, 2008; Balcı, 2008; Balcı & Soran, 2009; Çetiz, 2006; Dönmez, 2005; Ersoy, 2003; Orhan, Altun, & Kablan, 2004; Uğur, 2007; Usta, 2007). The findings obtained about this issue are given as sub-headings in some studies. For instance, in the study by Usta and Mahiroğlu (2008), it is seen that students who study in blended learning environment are academically more

successful than those studying in an on-line learning environment; that learning in BL environment provided life-long learning, and students in these environments are more satisfied with the learning process. In the study conducted by Ünsal (2007), students state that when they learn the subject in BL environment, they practice and repeat the topic; they do not need to communicate with their classmates as much in the web-based learning process; however, they need this contact more in the face-to-face learning environment, and the communication established with their classmates in these environments contributes to their learning. In his study about blended learning, Balcı (2008) states that students freely share their opinions and emotions in the forum environment, and the forum page positively affects their communication with their teachers.

When the studies are generally examined, any qualitative researches concerning students' opinions about teacher-student communication are not available. Thus, it is felt necessary to conduct the current research in order to reveal the perceptions of students studying in BL environment in relation to the interaction between themselves and the teacher.

Another important variable in the learning and teaching process is student satisfaction with lessons since according to Chang and Fisher (2003) the level of a student's satisfaction in a lesson is a very important component for them to acquire the knowledge or skill (Chang & Fisher). Student satisfaction, attitudes, and expectations in BL environment play an important role in the assessment of the efficacy of education process (Akkoyunlu & Soylu, 2008). A student can be considered to be satisfied if he feels that the lesson meets his needs and expectations. In other words, he feels that he learns (Ullyat, 2003). This can motivate the student to expend more effort in learning, increase his positive attitude towards the lesson, and to attend other courses in future. The results and findings obtained as a result of analyzing the opinions about communication in BL environment in the present study are expected to provide feedback to individuals in order to contribute to the future development of more efficient teacher-student communication in BL environments.

Purpose of the Research

The present research was conducted to determine the roles and responsibilities of lecturers and stu-

dents in BL environments, to reveal students' perceptions about lecturer-student and student-student communication, and to determine the students' level of satisfaction with these environments.

Method

Research Model

Both qualitative and quantitative approaches were used in the research. For the qualitative approach, a case study was used. This technique was used to make it possible for students who stated their ideas to express their experiences about the communication process in BL environment in a realistic and holistic way in parallel with the purpose of the research. For this reason, these opinions were generally obtained from open-ended questions. The scale prepared by Yılmaz and Orhan (2010) was the quantitative approach used to determine the students' satisfaction with BL environments.

Participants

The study cohort consisted of 30 volunteers who were students in the 4th grade studying in the Mathematics Department of Kocaeli University in the 2011-2012 academic year and who were taking a course in Computer Assisted Mathematics Instruction. These students had participated in lessons about blended learning environment before (Computer I and Computer II course) and they had experience about BL environments, this prior knowledge was considered to be a major reason to conduct the study with them.

Data Collecting Instrument

First, a literature review was undertaken in order to define the problem which is stated in the purpose of the research. After that phase, the scale to be used in the qualitative part was prepared. In the qualitative assessment instrument there were open-ended question ascertain student opinions about the student-lecturer communication in BL environments. Students were asked to express their opinions about the roles and responsibilities of lecturers and students in BL environments in the first question. Then in the other five questions, they were asked to write down their opinions about how they perceived student-lecturer communication in the BL environment, how they perceive student-student communication in the BL environment, how they perceive students' solidarity and cooperation with the group

in the BL environment, and whether students who took Computer Assisted Mathematics Instruction lesson were able to establish an easier communication with their lecturer in the web or face-to-face environment. In the 7th question the students were asked to grade their learning about Computer Assisted Mathematics Instruction lesson that they took in BL environment from 1 (very low) and 5 (very high). Finally, a questionnaire consisting of 12 items prepared by Yılmaz and Orhan (2010) was used in order to measure students' level of satisfaction with the BL environment.

Data Analysis

Data obtained from the open-ended questions in the questionnaire were coded using content analysis, a data analysis method used in qualitative research studies. The data were classified after the codification; the common expressions were determined and turned into items. As a result of the content analysis made by another person apart from the researcher, the results were compared and a similarity of 80% was obtained. This result shows the high reliability level of codification (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2008). Then, the answers given to the open-ended questions using the mentioned classification system were coded by another person apart from the researcher, and the consistency between those 2 codifications was calculated using the formula created by Miles and Huberman (1994). At the end of this study, 72 codes out of 76 that the researcher had proposed were approved, and an agreement was reached at the rate of $76/72 = 0.94$ about the suitability of codifications. High consistency was accepted as evidence of the internal consistency of qualitative analyses. The codification of research data was realized via QSR Nvivo 9.0 qualitative data analysis program as it was thought that would increase the internal consistency of the research (LeCompte & Goetz, 1982; Silverman, 1993).

Results

When the student opinions about the roles and responsibilities of lecturers giving lessons in the BL environment were examined, 2 main themes were created under the theme "*opinions about the roles and responsibilities of lecturers in the BL environment*": "*role of the lecturer*" and "*responsibilities of the lecturer*". Under the "*role of the lecturer*" main theme, students stated the following roles: "*being a leader* (7)", "*being a guide* (18)" and "*being a model* (5)".

When the opinions of students who had taken the Computer Assisted Mathematics Instruction lesson about their own roles and responsibilities in the BL environment were examined, it was seen that they mostly expressed their opinions about their responsibilities in these environments. The opinion with the highest frequency related to this subject is “*being active in the lesson (f=18)*”

Two main themes were created about students’ perceptions of lecturer-student communication in the BL environment: “*positive*” and “*negative*”. The opinion with the highest frequency under the “*positive*” theme was “*it is nice to continue communicating out of the classroom (f=18)*”.

The Opinions of students who had taken the Computer Assisted Mathematics Instruction lesson about student-student communication in the BL environment were divided into 2 main themes: “*positive*” and “*negative*”. The opinion with the highest frequency under the “*positive*” theme was “*students communicate and share a lot (f=14)*”. Students’ opinions under the “*negative*” theme are as follows: “*face-to-face communication cannot be replaced by any kind of environment (f=6)*”, “*students only follow only each other’s work in the learning management system (f=5)*”.

Students’ perceptions about students’ solidarity and cooperation with the group were divided into two main themes: “*positive*” and “*negative*”. The opinion with the highest frequency under the “*positive*” theme was “*information and experiences are shared more thanks to the learning management system (f=14)*”. The opinions under the “*negative*” theme are as follows: “*group works are similar to the traditional environment (f=5)*”; “*these environments are more appropriate for individual works (f=4)*”; “*sometimes communication problems occur in the group (f=4)*”; “*group members do not always participate in the group work (f=3)*”.

When the opinions under the “*I establish a face-to-face communication more easily because...*” theme, which is about the preferred environment for communicating with the lecturer and the reason for this, and the opinion with the highest frequency was “*face-to-face communication is easier (f=18)*”.

The mean scores for the Scale for Students’ Satisfaction with the BL Environment are $\bar{x}=3.44$ for the first factor; $\bar{x}=3.73$ for the second factor, and $\bar{x}=3.73$ for the third factor. Conclusively, it is seen that students’ level of satisfaction with BL environments is quite high.

Discussion

The students stated 3 roles for a lecturer giving lessons in the BL environment; being a leader, guide and model. The study conducted by Çakmak (2011) also addresses the changing roles of the teacher, and it was observed that prospective teachers in his study suggested that teacher roles should include guidance, motivating student’s learning and being a model. It has been stated that the teacher’s role has changed today and that he should no longer have the role of presenting the information and controlling the process but should take the role of following and facilitating the process (Collison, Elbaum, Haavind, & Tinker, 2000).

It can be said that managing the classroom, respecting students as individuals, creating an efficient learning environment, using the technologies required by the lesson and specialization in his field are the responsibilities of teachers which have already been stated in previous studies (Çakmak, 2011; Toprakçı & Ersoy, 2008; Uşun, 2006), and these responsibilities are the same for BL environments. As a result of the research that Kirişçioglu (2009) conducted, he stated that the BL environment increased the opportunities for communicating with the teacher, and almost all the students established easier communication with their teachers through this application. The opinions of the students who had taken the Computer Assisted Mathematics Instruction lesson, about student-student communication in BL environments which were under the positive theme support that students communicate and share a lot with each other. In previous studies, it was stated that BL environments improved student-oriented learning and increased lecturer-student and student-student interaction (Carmody & Berge, 2005; Davies & Graff, 2005).

When the student opinions about the environment that they prefer for communicating with lecturers and the reason for their preference were examined, it was observed that most of the students stated they preferred face-to-face communication environment as they feel much more comfortable this way. The results of the study conducted by Balcı (2008) are in parallel with the results of the current research. Similarly, when face-to-face and web-based environments are blended, it can be seen that students consider face-to-face instruction more valuable in every case and they emphasize it (Ünsal, 2007; Yılmaz, 2009). Similar results were also obtained in the studies of Thorne (2003) and Akkoyunlu and Soylu (2006). According to Molinari

(2003), face-to-face learning environments are preferred to web-based learning environments even though individuals can communicate with each other via chat programs, and this is because web-based environments cannot be as sincere as face-to-face learning environments. In general terms, it can be said that students who had taken the Computer Assisted Mathematics Instruction lesson in the BL environment are satisfied with the medium. When students' opinions are assessed in general terms (Kirişçiöğlü, 2009), it can be said that students were happy to participate in an application where the blended learning method is used. In the study conducted by Karaman, Özen, Yıldırım, and Kaban (2009), it was seen that the lessons which were conducted with internet assisted instruction applications had positive impacts on students.

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