AN ANALYSIS OF FACTORS AFFECTING COMMUNITY COLLEGE STUDENTS' EXPECTATIONS ON E-LEARNING

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INTRODUCTION

Opportunities the Internet provides make e-learning widespread and easy to access. E-learning has been integrated to most of today’s university programs. However, universities providing e-learning should consider several factors while developing and implementing these programs (Selim, 2007). Weller (2007) stated that e-learning environments have three components: people, process, and technology and these factors form the basis of a learning community. The most important of all in this triangle is the “people,” as the success of a community depends on its members. Moreover, new technologies increased interest in e-learning and thereby it rapidly improved. Nevertheless, e-learning initiatives remained mainly at the stage of course development and course material preparation, disregarding the highly complex interrelated structure of e-learning systems (Alexander, 2001). Additionally, this triangle is associated with each of the three components and it is not possible to separate them with precise lines. Experiences and expectations of both students and teachers should be openly discussed and set in e-learning environments (Stodel, Thompson, & Mac-Donald, 2006). To find answers to the fundamental questions like why e-learning environments are to be developed, who the students are and what their expectations are, and to learn the structure and content of these environments, a pedagogical approach and theoretical background must be necessitated (Minocha & Sharp, 2004).

Awareness of e-learning expectations and realizing these facilitate students’ willingness contribute to instructor-student and student-student interaction (Dennen, Darabi, & Smith, 2007). In e-learning, the larger the gap between students’ expectations and experiences is, the less the student participation becomes. Defining expectation types and finding the underlying reasons for these expectations to maintain continuance will raise
e-learning quality (Swan, 2003). Motivation of e-learning students will increase when they feel the effort made to meet their expectations and the value attached to them as individuals (Dennen, Darabi, & Smith, 2007).

Most studies of e-learning have focused on what instructors can do or what instructors have done so far (Alexander, 2001). Student experiences and expectations have generally been disregarded. The literature demonstrates that significant differences observed on experiences will inevitably influence student expectations. If e-learning is taken as a system, it will be incomplete to refer to just one experience or expectation. The e-learning system requires consideration of a variety of factors, including students’ varying expectations.

When some expectations of students in the e-learning environment are not met, it might result in drop-outs (Martinez, 2003; Minocha & Sharp, 2004). Possible reasons are aridity of the e-learning environment, low level of usability, weak interaction between students and the content, insufficient support by the instructor, and ineffective cooperation among students (Minocha & Sharp, 2004). To identify the reasons for the problems e-learning students experience and why drop out, new students’ expectations and to what extent these expectations are met needs to be prioritized.

Literature shows that students appreciate accessing the instructors and feeling their support. In addition, it is vital that students sense being observed and followed in courses. Expectations of students and even of instructors should be questioned while designing, organizing, and managing the instruction in e-learning (Garrison, 2006; Stodel et al., 2006). It is necessary that students’ and instructors’ roles are to be redefined in e-learning environments, as it is quite different from face-to-face learning in terms of student and instructor attitudes, practices, and expectations. Transformation processes in education require clarifying student expectations specifically (Stodel et al., 2006).

In the e-learning process, it is inevitable for students to encounter various barriers that may prevent them from learning. Therefore, it is necessary to fully understand students’ needs and expectations. As with any formal training programs, in e-learning, policies, procedures, and support offered to students should address students’ needs and expectations (Kumara-wadu, 2001). Failure to make e-learning process transparent may be disturbing for students in terms of communication. Therefore, open communication in line with the expectations of students in e-learning is very important (Frydenberg, 2002). Students have expectations for presentations of e-content, which is one of the important elements of the instructional process. For example, Carliner (2002) noted that e-learners expect to find abundant examples and exercises for the content.

“People” is another significant component of e-learning environment. In this sense, students expect faculty to provide a satisfying and enjoyable learning environment (Kumara-wadu, 2001). Instructors must keep in mind students’ educational needs, relate students’ personal experiences with the e-course, provide real-world applications, and allow students to work collaboratively. In the e-learning environment, students do not become self-sufficient until they are familiar with the system and gain experience. Hence, faculty are expected to help students to learn at their own pace until students show maturity of being familiar to the LMS.

In e-learning, one of the most important factors affecting the experience of learners is the technical support provided to the faculty and students (Concannon, Flynn, & Campbell, 2005). Strother (2002) indicated that students choose e-learning because they receive fast and intensive technical support. MacDonald, Stodel, Farres, Breithaupt, & Gabriel (2001), reported that students, facing the e-learning environment first time, technical support to improve their learning. Arabasz and Baker (2003) highlight the importance of preparing technology infrastructure and techniques in which teachers and students should be trained in order to make e-learning effective. There-
fore, technical training is required for instructors and students before e-learning process.

There are many factors that affect e-learning process. Instructor, assessment and evaluation, communication, and technical support are among the leading factors. It is obvious that these factors influence the effectiveness of e-learning and may be related to different expectations of e-learners. Therefore, this study focused on examining the expectations of first year students enrolled in an e-learning program with respect to teaching-learning, instructor, assessment and evaluation, communication, and technical support. It is hypothesized that this study will reveal the expectations of community college students participating in the e-learning process. The findings of this study will provide insights about students’ expectations by contributing to quality enhancement at the university where the study was conducted, and widespread implementation of e-learning programs. Since profiles of community college students are different from college and postgraduate students, e-learning in community colleges has to be examined accordingly. Although postgraduate students in e-learning programs know how to survive in e-learning and ensure success (Schaverien, 2002), high school students who have graduated recently and started community college do not have this qualification. Therefore, students enrolled in community college education have different expectations.

**METHODOLOGY**

**Participants**

The study was conducted in the beginning of 2007-2008 fall semester at a 2-year vocational postsecondary education program, equivalent to a community college in the United States. Participants were first year students majoring in computer programming and business administration. The number of registered students during the semester was 511. Two hundred fifty students were studying computer programming and 261 were in the business administration programs. Though all students were given questionnaire, only 138 of them were returned, a response rate of 27%.

The demographic information of participants shows that 48.6% of them are male and 51.4% female, 10.9% of the students have been using computers for less than a year, 11.6% for 1-2 years, 23.2% for 3-4 years, 21% for 4-5 years and 29.7% for 6 or more years. Also, 21.7% of the students have been using the Internet for less than a year, 28.3% for 1-2 years, 22.5% for 3-4 years, 15.9% for 4-5 years and 8.7% for 6 or more years. The percentage of students who own computers at home is 90.6%, while 5.8% do not own computers at home. In addition, 87% of students have an Internet connection at home, while 8.7% do not. Those without computer and/or the Internet access at home indicated that they use computers at work, at a friend’s office or home, or at Internet cafes.

**E-learning Environment**

Distance Education Community College of Gazi University, with the opening of Computer Programming and Business Administration programs, began accepting students in the 2006-2007 school year. By supporting the course contents presented in the programs with texts, animations, and sound, e-learning programs through learning management system (LMS) are available to registered students. E-learners, by using LMS, might easily follow related course content, teaching staff and administrative announcements, academic calendar, evaluation results, and students’ fees. E-learning contents are prepared for 14 weeks. All courses are open to students throughout the semester. Thus, e-learners might easily examine the topics that have been seen before and will be seen in the coming weeks. Students might interact with the faculty advisors individually, and assignments, discussions, chat, examination process may be conducted over LMS system. In addition to that, e-learners’ homework, discussions, monitoring course content, activities such as participation in chat
session, student assessment processes, and student announcements are followed easily. In the e-learning system, midterms and additional examinations approved by faculty advisors are carried over the LMS. As with other examples in the world, final exams are conducted face-to-face.

**Data Collection**

Twelve open-ended questions were administered to students to determine expectations. Questions were related to e-learning activities, assessment and evaluation, instructors, communication, and technical support. Questions were administered at the beginning of the semester, since students needed time to become familiar with the system. Questions were revised by four e-learning experts to ensure content validity. Then, questions were finalized, considering the experts' feedback. Afterwards, to ensure the clarity of questions, two e-learners checked the questions and unclear items were revised. Students completed questions online by logging their usernames and passwords in the system. About completing questions, students were sent reminders three times.

**Data Analysis**

The purpose of the study was to identify community college students' expectations of the e-learning program. Thinking about three components of e-learning (people, process, and technology), a coding schema (Table 1) was developed on these components, which further grouped within more categories (instructional process, instructor, assessment and evaluation, communication, and technical support). Researchers of the study coded the data by using the coding schema. They first worked together to read the responses of students and divide each unit of meaning. Then they coded the data independently by identifying the responses. After the coding was completed, they compared their coding and their disagreement on categorizing responses was resolved through discussion.

**RESULTS**

This section provides findings on expectations of community college students about e-learning program. The findings are organized under categories of instructional process, instructor, assessment and evaluation, communication and technical support. Students' expectations of e-learning programs were analyzed and coding totals and percentages were summarized in Table 2.

**Instructional Processes**

Students' expectations regarding the instructional process are in first place with 40.14%. In particular, students' solution methods in the search for responses to the problems encountered in e-learning were coded frequently. Accordingly, the coding in the category of expectations regarding instructional process was collected under two categories: expectations related to study habits and study conditions (28.57%) and expectations related to e-course content and delivery (11.57%).

The number of students per instructor, the lack of time spent in chat sessions by faculty members, and communication problems between instructors and students are among the factors affecting instructional process. Besides, according to students' responses, some of the factors affecting instructional process were cited as disintegration of attention in e-learning, no working habits in the evening hours, increasing responsibilities and demanding self-regulated learning, seeing themselves as teacher, and failure to follow a strict timeline to work and do homework. Some of the students' responses, such as “Unavailability of a person to get help when there is a problem or an unclear point during self-study is troublesome.” “The possibility of missing the important points while chatting, limited time for chats, unable to ask spontaneous questions...”
while studying, delays in e-mail responses worries me.” and “I feel opportunities to ask questions are limited.” clearly show that students require immediate solutions when they get stuck during instruction.

Students’ responses on the structure of e-courses show that in addition to the text, images, animations, video, synchronous communication tools, and resources should be used frequently and that examples regarding course topics should be focused on detailed and descriptive information and resources. Students emphasize the importance of connecting with instructors, the need to spend efficient time in chat sessions, and a desire for more than an hour of chat time.

**Instructors**

According to 9.09% of the e-learners, teachers should actively engage in chat sessions. Most of the responses suggest that students expect more interest from instructors and more explanation about courses while commu-
nicating with instructors. In relation to the TC component, students’ responses like “Especially for those who encounter such a system first time, I expect the faculty to be more tolerant and to provide me continuous information I want … and “Even if instructors reply to our messages, it is sufficient to us.” imply these kinds of expectations.

Some of the responses confirm that students ask instructors to strictly participate the chat session hours and expect effective longer chat sessions. Responses like “It is not fair that some instructors kept us waiting for an hour in the chat sessions.” and “I think every student should prepare questions before class and every student must be given 5 or 10 minutes in every chat session” show that students want instructors more active and effective in chat sessions.

**Assessment and Evaluation**

E-learners’ expectation rate about their own assessment of the success is 11.45%. In this situation, e-learners prefer face-to-face exams for either midterm or final exams. In the current system, students take online midterms of any courses whenever they want during the midterm week. The final exams are organized in two sessions with 4-5 course exams in each administered at campus at weekends. Responses suggest that some of the students are satisfied with this situation. Nevertheless, some students have fears, such as electrical shortage while taking exams. In the current system, students are entitled to claim the re-examination process if instructor allows it. Students who are new to the system are not aware of this situation. Be aware though, students are seen to leave midterm entry to the last day, and many students expire the demand time. Students’ early entry to midterm exams and timely demand of claiming reexamination may be provided by an orientation program. Multiple choice tests are preferred by some of the students. Additionally, e-learners acknowledged that they expect easy tests. These two expectations can be regarded as an indicator of students’ demand to obtain high success without a lot of work. This shows e-learners are not fully prepared to take responsibility for their learning in this system.

**Communication**

Students’ expectation about communication in e-learning is in second rank with 27.51%. In expectations of students for the category of communication, codes were divided into two categories: expectations about the communication tools (15.35%); and expectations about chat session time (12.16%). As a result of students’ responses, it has emerged that instructors communicate with students pri-
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E-learners’ expectation rate related to the solution of technical problems is 11.81%. The responses of the students for solutions to technical problems indicate that a large majority of students communicate with relevant units of the university to obtain the technical support they consider to be the solution.

Some of the e-learners’ responses reveal that e-mail and phone could be the solution to communicate with faculty members. As one responded noted about faculty members, “There should be adviser. Even if we have advisers, we don’t know; because they did not make contact with us.” This response shows e-learners do not mind seeing instructors as technical support staff. Two main problems related to students are that they do not try to get used to the system themselves.

DISCUSSION AND CONCLUSION

The foremost finding of the research is that students have not chosen an e-learning program willingly and consciously. It might be due to inadequate guidance for high school students and lack of presentation on e-learning. Community colleges should more frequently present advantages of their programs through printed and visual media. The most important challenge for students is the ambiguity of what is offered. Absence of a physical classroom triggers this problem and leads to developing different senses such as belonging, fulfillment, and confidence in communication (Ni & Aust, 2008). In addition, belonging to a group or a school, realizing the duties and responsibilities, and meeting the educational needs with common purposes are the essential components of a classroom environment. However, as students could not find these components they are used to and are unfamiliar with the e-learning system, their behaviors, perspectives, and learning experiences are unavoidably affected (Rovai, 2002). In other words, if students had a feeling of attachment to the classroom, their perspectives would be more positive and there would be better learning performance (Bischoff, 2000). Furthermore, some students are aware of positive aspects of e-learning and prefer to work and study at the same time, taking it as a good opportunity.

Another striking point is the communication with the instructor. E-learners want their courses to be supported by visual and audio materials with clear and sufficient explanations. Even though they are not familiar with the e-learning system, students seem to have realized that they are on their own in the learn-
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Swan (2003) pointed out that despite the amount of visuals and animations, there remains a need for more examples. Since most students are used to face-to-face instruction, they constantly need guidance and find chat session hours insufficient. They expect more support from their instructors and want to form better communication links. Most of the students believe that they can solve the problems encountered by contacting the instructors. The need for communicating with the instructor is maximized in e-courses due to unavailability of immediate feedback and explanation by the instructor (J. D. Baker, 2004). The research clearly shows that oral or written feedback from the instructor positively influences cognitive learning and its effectiveness (Allen, Witt, & Wheeless, 2006; J. D. Baker, 2004; Pogue & Ahyun, 2006). The vitality of the instructor is once more emphasized in e-learning programs. Hence, instructors teaching in e-learning programs should be well qualified and competent in meeting student expectations. To prepare high quality and clear course content and to conduct these courses requires trained instructors. Fostering students’ participation and encouraging them to communicate more frequently during discussion and chat sessions depend on the instructor’s feedback strategy (Ni & Aust, 2008).

When expectations of e-learning assessment and evaluation processes are examined, it is observed that students focus on summative evaluation rather than formative evaluation. In other words, students are more interested in passing the exams than learning the course content. In the current system, students take midterm exams online and for final exams they need to visit the campus. Students are graded considering these exams, participation in the course, assignments, and projects. Students mostly stated their opinions on midterms and final exams rather than on projects and assignments. Willingness to take both exams on campus might be due to need for socialization and meeting their classmates and instructors in person. Some students want to have multiple-choice tests, showing that they do not know the assessment processes of e-learning very well. In line with innovations in the field of technology, making use of alternative assessment methods in e-learning is important (Suen & Parkes, 1996). For instance, performance assessment enables more active participation of students, finding solutions to real life problems easily and developing metacognitive skills (E. L. Baker, O’Neil, & Linn, 1993; Linn & Gronlund, 1995; Wiggins, 1992). Moreover, with portfolio assessments, evaluating not only the end of the semester product but also activities during the process are possible (Reckase, 1995). In order to prevent focusing solely on failing or passing the exams, alternative assessment methods should be integrated into e-learning systems.

Students mostly prefer the Internet for any kind of communication, which shows that students are ready for e-learning. Some of the students preferred face-to-face communication with their friends and instructors. This outlines face-to-face communication as a problem for e-learners’ experience. Student organizations or clubs can be established on campus for students to get together partially that might solve the problem of lack of face-to-face interaction and communication. The need for face-to-face interaction might come from insufficient and ineffective use of online communication tools. Fuks, Gerosa, and De Lucena (2002) and Meyer (2003) listed problems experienced in chat sessions as limited answers to questions, low level of participation, insufficient detailing of topics, and lack of in-depth discussions. These might be resolved by increasing the duration and quality of chat sessions, which will also help students (working, handicapped, etc.) who cannot make use of face-to-face education and need alternative ways to pursue their education. Increase in the chat session hours, enabling synchronous communication, will foster students’ social presence. This is possible by integrating well-qualified instructors into e-learning. Hence, students will be motivated while participating in chat sessions.
effectively and feeling that they are continuously followed and valued through assignments and formative evaluation (Motiwalla & Tello, 2000).

Students generally prefer to meet their friends and instructors at the chat sessions at night times because they work and study at the same time. On the other hand, some students reject meeting at nights because they have various study habits and do not prefer studying at nights. Chat sessions might be organized both during the day and at night with a more flexible program. Another issue noted by students is related to ineffective use of time at chat sessions. Chat sessions are significant in that they provide similar opportunities as in the face-to-face learning environments, lead to learning from peers, encourage self-expression through interaction (White & Cheung, 2006), and foster in-depth learning (Osman & Herring, 2007) and communication with instructors. Carswell, Thomas, Petre, Price, and Richards (2000) reported that chat sessions have not yet been internalized and thereby cause some problems. This study supported the notion that familiarity with the Internet is an important part of the process. Both students and instructors should understand “netiquette” and possess necessary competencies for e-learning. Chat session performance skills of instructors and students will improve through experience (Yang & Liu, 2007) and with institutional support.

Another issue noted by this study is the lack of technical support. Students declared that they want to solve technical problems by contacting university staff or instructors. After registering for e-learning programs, students should be informed about the learning process, as well as potential problems and how to solve them, in an orientation session. Seale (2006) noted that the literature on technology and e-learning mainly focuses on accessing principles, regulations, and standards along with the rules; however, trying to adapt our students to these norms and rules is not a good solution. He pointed out the need for meeting the needs and expectations of students in addition to setting rules and stating procedures. Considering the direct influence of interaction level of students to the information technologies on e-learning activity participation (Powers & Mitchell, 1997), students should be provided with online help desk service to solve technical problems (Saba, 1999). Results clearly show technical support affects learning outcomes and student motivation; therefore, secure technological infrastructure at the institutional level and opportunities to improve online communication skills should be provided. Seale (2006) added that technical support should not be limited to technological access, but should be extended to online materials and resources in the learning context.

In the light of the findings from this study, the following can be stated as the points to be taken into account while developing and conducting e-learning programs in community colleges:

- Detailed presentations for students should be organized on e-learning programs.
- Instructors should be trained and informed about student profiles and expectations.
- An orientation program should be organized for information on expectations. Meanwhile, extracurricular activities on “learning to learn” and personal development should be developed.
- Face-to-face and virtual clubs should be established where e-learners meet and socialize.
- The interaction between the course content and students should be enhanced.
- The duration of chat sessions should be increased. By providing a more flexible program, student participation in chat sessions can be maximized.
- Alternative assessment methods should be utilized in e-learning and more research on this topic should be conducted.
- Considering the technical problems students might face, services like technical support and help desk should be provided.

E-learning systems are directly and indirectly affected by a variety of factors. It is
almost impossible to perfect any system with which people are involved. Nevertheless, by increasing students' level of satisfaction and making students feel that they are important, the learning process can be enhanced.

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