

Factors Influencing Student Engagement and the Role of Technology in Student Engagement in Higher Education: Campus-Class-Technology Theory*

Yükseköğretimde Öğrenci Bağlılığını Etkileyen Faktörler ve Teknolojinin Öğrenci Bağlılığındaki Rolü: Kampüs-Ders-Teknoloji Kuramı**

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Abstract

The purpose of the present study was to determine both the factors influencing student engagement and the role and influence of technology on student engagement. The study is important as it aimed at determining the views of students about student engagement and examining in detail the research data to be collected with two different data collection techniques. The present study was designed as a grounded theory study. The research sample included a total of 45 student teachers. Of all the participants, 25 of them participated in face-to-face Interviews, and 20 of them were asked to take part in written compositions. In conclusion, it was seen that the components constituting and influencing student engagement were found to be campus engagement and class engagement. It was found out that for most of the participating students, use of technology in class was not an indispensable factor for student engagement. In addition, an effective technology integration would not only contribute much to student engagement but also constitute an important way of increasing student engagement. Finally, it was seen that use of technology in instructional activities constituted an important factor for student engagement, when the findings obtained via the interviews and the written compositions were taken into consideration together.

Keywords: *Student engagement; campus engagement; class engagement; technology; theory; higher education*

Öz

Bu çalışmanın amacı, öğrenci bağlılığını etkileyen faktörleri ve derste kullanılan teknolojilerin öğrenci bağlılığındaki rolünü belirlemektir. Bu çalışma, iki farklı veri toplama tekniğinin kullanılması ve durumun kendi doğal bağlamında incelenerek detaylı veri toplanması açısından önemlidir. Bu çalışma gömülü kuram ile desenlenmiştir. Araştırmanın katılımcıları toplamda 45 öğretmen adayı oluşturmuştur. Yüzyüze yapılan görüşmeler için 25, kompozisyon için 20 öğretmen adayı katılımcı

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olarak belirlenmiştir. Sonuç olarak, öğrenci bağlılığını etkileyen faktörler, kampüse ve derse bağlılık bileşenleri altında ele alınmıştır. Ayrıca, birçok öğrenci için derste teknoloji kullanımı bağlılıklarının artması için şart görülmemiştir. Ancak etkili teknoloji entegrasyonunun, sadece öğrenci bağlılığına katkı sağlamadığı ayrıca öğrenci bağlılığını artırmanın önemli yollarından biri de olduğu sonucuna ulaşılmıştır. Tüm bulgular sonucunda, öğrenci bağlılığı ve teknoloji kullanımı arasındaki ilişkiler çalışma sonucunda geliştirilen Kampüs-Ders-Teknoloji Kuramı ile açıklanmaya çalışılmıştır.

Anahtar kelimeler: Öğrenci bağlılığı; kampüse bağlılık; derse bağlılık; teknoloji; kuram; yükseköğretim

Introduction

Today's students referred to as learners of the 21st century, students of the new millennium, generation Y, Internet generation and technological natives are defined by Prensky (2001a) as "digital natives" as they are born into technology use and technology culture. It could be stated that for digital natives, technology is much more than a tool because it is considered a way of life and because technological environments are regarded as an ordinary natural environment. On the other hand, digital immigrants constitute the group of individuals who try to adapt themselves to the technological culture at a later time and who try to be involved in the digital world. It could be stated that today's students are digital natives and that teachers introduced to technological culture at a later time are digital immigrants (Bayne and Ross, 2007). It is seen that these two generations, which have two different technological cultures, coming to conflict in class environment. The fact that students have experience in technology causes them to think that they are more knowledgeable about technology than teachers. In addition, some students believe that the Internet has an instructional potential more than teachers do (Kolikant, 2009). On the other hand, teachers think that students do not pay enough attention to their classes; that they are lazy; and that they are reluctant to learn. In order to fill this gap between teachers and students and to find a solution to this by building a bridge between them, Prensky (2001a) suggests that teachers should understand the language of digital natives and understand them well. One important, probably the most important, way of building this bridge could be said to be technology.

Digital natives have a different life style and behavior in many respects, yet the major difference is obviously related to technology use. It is seen that digital natives frequently use a number of digital environments and tools such as desktop and laptop computers, tablets, the Internet, e-mail, instant messaging, mobile phones, cameras, video cameras, MP3 players, memory sticks and social networks. It is also believed that digital natives have different preferences and styles of learning compared to the former generation (Prensky, 2001b). In addition, it is an important fact that according to some educators and researchers, digital natives use technology differently, have different thoughts, and learn differently (Oblinger & Oblinger, 2005; Prensky, 2001b).

Today's students, digital natives, mingle with technology in their daily lives. Educational environments constitute an important part of students' lives. Digital natives claim that schools should be organized in line with their own desires and needs (Kolikant, 2010). In this respect, it is thought that educational environments which are not designed for digital natives are likely to disengage students from the school, from the class and even from learning and that a conflict may occur between digital natives and the school (Pedró, 2006). Thus, students' interest, perceptions and willingness are fairly important for academic achievement and attendance at school. Their engagement helps them benefit efficiently from the school. The historical development of the concept of student engagement dates back to years ago. In this respect, the foundations of engagement depend on time on task (Tyler, 1930s), quality of effort (Pace, 1960-1970s), student involvement (Astin, 1984), social and academic

integration (Tinto, 1987, 1993), good practices in undergraduate education (Chickering and Gamson, 1987), outcomes and lastly on student engagement, which is a concept covering all of them (Nelson Laird and Kuh, 2005). Student engagement is a sociological and psychological concept (Kahu, 2013). Krause and Coates (2008) related student engagement to high quality in learning outcomes. Kuh, Kinzie, Buckley, Bridges and Hayek (2007) defined student engagement as participation in effective instructional activities that lead to measurable outcomes in and out of class. Gunuc and Kuzu (2014) defined student engagement as *the quality and quantity of students' psychological, cognitive, emotional and behavioral reactions to the learning process as well as to in-class/out-of-class academic and social activities to achieve successful learning outcomes.*

It could be stated that both the student and the institution, the two sharers of education, are responsible for increasing the level of student engagement (Trowler, 2010). In recent years, Educators drew attention to such problems as low level of student engagement, dropout at early age, poor student behavior and low level of academic achievement (Harris, 2008). In this respect, student engagement is an important part of the education system with such benefits as social network, sense of belonging, enjoyment of school, academic achievement and positive learning outcomes (Dunleavy and Milton, 2009; Furlong and Christenson, 2008). There are a number of factors to increase student engagement with campus and with class. It is also important to organize the environment in which students learn enthusiastically and ambitiously. For this reason, it is necessary to take technology into consideration as digital natives differ from other generations in this respect. The fact that technology now has an important place in students' lives and that they want to mingle with technology in any place at any time makes it necessary to carry out effective technology integration into school environments. In other words, as technology is regarded by students as a way of life, it is important to investigate the role and influence of technology on student engagement. In addition, it is also important to investigate the factors influencing their campus engagement and class engagement as well as the relationship of these factors. When the related literature is examined, it is seen that there are some studies conducted to examine the relationship between technology and student engagement (Bouta, Retalis and Paraskeva, 2012; Gebre, Saroyan and Bracewell, 2014; Gurung and Rutledge, 2014; Veira, Leacock and Warrican, 2014); however, there is still a need for further research to investigate in detail the role and influence of technology on student engagement. Therefore, the present study is important as it aimed at determining the views of students about student engagement and examining in detail the research data to be collected with two different data collection techniques. In the light of all these, the overall purpose of the present study was to determine both the factors influencing student engagement and the role and influence of technology which uses in class (such as computer, internet, tablet, PowerPoint) on student engagement. Depending on this overall purpose, the following research questions were directed in the study:

1. What are the factors influencing student engagement?
 - a. What are the factors influencing student teachers' campus engagement?
 - b. What are the factors influencing student teachers' class engagement?
2. What is the role and influence of technology on student engagement?

Method

Research Design

The present study was designed as a grounded theory study. Grounded theory was developed by Glaser and Strauss (1967). Grounded theory is an inductive, theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic. Grounded theory

design is a systematic, qualitative procedure used to generate a theory that explains, at a broad conceptual level, a process, an action, or an interaction about a substantive topic (Creswell, 2008).

Participants

The participants in the present study were selected on random basis among volunteering third-grade and senior student teachers attending the Education Faculty of Anadolu University in the Spring Term of the academic year of 2012-2013. The reason for selecting the participants from the third-grade and fourth-grade classes was that it was possible to collect more detailed data in line with the research purposes as the participating students had taken several classes and thus had experience as a student on campus. The research sample included a total of 45 student teachers. Of all the participants, 25 of them participated in face-to-face Interviews, and 20 of them were asked to take part in written compositions. The identities of the participants were kept confidential, and they were asked for their written and oral consents to use the data to be collected for research purposes. In order to keep secret the identities of the participants interviewed, the interviews were coded as "I1..I25" (Interview1..Interview25). As for the data collected via the written compositions, they were coded as C1..C20 (Composition1..Composition20). Table 1 and Table 2 present the related information about the collection of the qualitative research data.

Table 1
Information about the Interviews Held with the Participants

Code	Department	Grade	Duration (min.)	Date
I1	Computer Education and Instructional Technologies	3	27:05	03.04.2013
I2	Computer Education and Instructional Technologies	3	31:01	08.04.2013
I3	Computer Education and Instructional Technologies	3	40:08	03.04.2013
I4	Computer Education and Instructional Technologies	4	24:05	18.04.2013
I5	Computer Education and Instructional Technologies	4	16:19	12.04.2013
I6	Foreign Language Education	4	17:32	18.04.2013
I7	Foreign Language Education	4	20:59	18.04.2013
I8	Foreign Language Education	4	16:53	09.05.2013
I9	Foreign Language Education	4	16:17	09.05.2013
I10	Fine Arts Education	4	10:30	22.04.2013
I11	Fine Arts Education	4	15:53	22.04.2013
I12	Fine Arts Education	3	18:11	16.05.2013
I13	Fine Arts Education	3	21:44	17.05.2013
I14	Fine Arts Education	3	21:44	17.05.2013
I15	Primary Education	3	12:59	09.05.2013
I16	Primary Education	3	11:23	09.05.2013
I17	Primary Education	4	24:09	18.05.2013
I18	Primary Education	4	12:45	21.05.2013
I19	Primary Education	3	12:31	23.05.2013
I20	Primary Education	3	12:50	23.05.2013
I21	Special Education	4	07:30	11.04.2013
I22	Special Education	4	11:31	11.04.2013
I23	Special Education	4	20:25	21.05.2013
I24	Special Education	4	14:55	21.05.2013
I25	Special Education	3	13:12	21.05.2013

Table 2

Information about the Compositions Written by the Participants

Code	Department	Grade	Date
C1	Special Education	3	20.05.2013
C2	Special Education	3	18.05.2013
C3	Special Education	3	25.05.2013
C4	Special Education	3	21.05.2013
C5	Computer Education and Instructional Technologies	3	21.05.2013
C6	Computer Education and Instructional Technologies	3	21.05.2013
C7	Primary Education	3	20.05.2013
C8	Primary Education	3	28.05.2013
C9	Primary Education	3	22.05.2013
C10	Primary Education	3	22.05.2013
C11	Primary Education	3	27.05.2013
C12	Primary Education	3	25.05.2013
C13	Primary Education	3	18.05.2013
C14	Primary Education	3	25.05.2013
C15	Primary Education	3	25.05.2013
C16	Foreign Language Education	3	28.05.2013
C17	Foreign Language Education	3	27.05.2013
C18	Foreign Language Education	3	28.05.2013
C19	Foreign Language Education	3	27.05.2013
C20	Foreign Language Education	3	27.05.2013

Data Collection Tools

In the study, qualitative data collection tools were applied. For this purpose, semi-structured interviews and composition forms were used. The interviews were individually held on face-to-face basis. The semi-structured interview form included eight interview questions to determine not only the factors influencing the student teachers' campus engagement and class engagement but also the role of technology in student engagement. With the help of the composition technique, the participants were asked to write down their views about the questions of "*What is the role and influence of technology on classes, in-class and out-of-class activities and on your engagement with the requirements of the courses? Which technologies should be used to increase your engagement, and how?*" The use of written compositions was thought to help examine in detail the role and influence of technology especially on their class engagement.

Data Analysis

For the analysis of the qualitative data, the data collected via the interviews and the written compositions were coded with the content analysis method. As a result of this coding process, the main themes, sub-themes and concepts were determined, and the related findings obtained were interpreted. Content analysis involved coding the data, determining the themes, organizing the codes and themes and interpreting the findings (Corbin and Strauss, 2007). The process of content analysis was conducted by two field experts, and the process continued until consensus on the themes was achieved. Following content analysis, the participants' views regarding the themes were reported with direct quotations.

Confirmability, credibility, transferability and dependability were proposed as the criteria for trustworthiness of qualitative research by Lincoln and Guba (1985). *Confirmability* is measurement of how well the findings of an inquiry are supported by the data collected. *Credibility* is confidence in the 'truth' of the findings. *Transferability* shows that the findings have applicability in other contexts. *Dependability* is assessment of the quality of the integrated processes of data collection, data analysis, and theory generation. In this context, triangulation, data audit, confirmability audit and code-recode techniques, which are included in the criteria, were used to establish trustworthiness in the study.

Findings

Findings Related to the Interviews

In order to determine the factors influencing campus engagement and class engagement interviews were held with the students. In addition, the study also aimed at determining the role influence of technology on student engagement.

Table 3
Factors Influencing Student Engagement

Main theme	Sub-theme	Concept	f	
CAMPUS ENGAGEMENT	Campus environment and facilities	Campus environment (physical area)	13	
		Campus activities	11	
		Campus safety/peace	10	
		Campus facilities (tools, cafes ...)	8	
		Student groups and sports teams	5	
		Accommodation place	4	
		Guidance/Goals/Objectives/Orientation	2	
		Working in campus (part-time jobs)	2	
	Faculty-student interaction and facilities	Faculty facilities (canteen, library and so on)	12	
		Faculty staff and relationships with students	7	
		Equal opportunities among different faculties in the campus	6	
		Faculty administration giving value to students / having them feel special	5	
		Faculty activities	3	
CLASS ENGAGEMENT	The faculty member	Students' liking the faculty member	20	
		In-class and out-of-class interaction with students (communication, respect, attitude, interest, value, friendliness)	18	
		Field competency	13	
		Teaching the courses entertainingly	10	
		Achieving active participation of students in class (interactive lessons)	8	
		Lecturing / Methods and techniques	8	
		Efforts to teach	4	
		Providing feedback	4	

Main theme	Sub-theme	Concept	f	
		Motivating the students	3	
		Becoming a model	3	
		Being fair in classes and assessment	1	
		Faculty members' respect/attitudes towards the class	1	
		Faculty members' encouraging the class activities and projects	1	
	The structure and features of the course and classroom		Benefits/contributions of the course	18
			Teaching the course in an applied/practical manner	7
			Physical conditions in the classroom (stuffy, hot, small)	6
			Relating the lessons with real life	6
			Over-compelling courses or assignments	3
			Attitudes towards the department	2
			Classes in the morning	2
			Classes without a break	1
	Student		Relationships with friends	16
			Eagerness to learn/developing oneself/sense of responsibility	6
Belief/self-confidence in achievement			4	
Liability for the family			3	
ENGAGEMENT WITH TECHNOLOGY	Technological infrastructure	Technological infrastructure of classes and of the faculty	14	
		Technical defects in technology and lack of related support	6	
		Use of technology in campus activities	5	
		Introduction of technological innovations	1	
	Technological infrastructure		Lectures' competency in technology/effective integration of technological tools	18
			Use of online environments such as Facebook and Twitter as a support to classes	18
			Technological infrastructure in class	15
			Optional use of technology in class, yet if used, it should be effective	9
			Technology use in assessment	1

As can be seen in Table 3, depending on the content analysis conducted, the factors influencing student engagement were gathered under three dimensions as campus-related factors class-related and technology-related factors. Among the factors classified within the scope of these main themes, the important ones are defined in detail below.

Campus Engagement

It was seen that the factors influencing campus engagement were related to the campus itself and to the faculty. However, it was found out that these factors also had influence both on student engagement and on students' sense of belonging to the campus as well as on their valuing the university. Among the most important factors influencing campus engagement was the physical area

in the campus. Most of the students interviewed stated that such factors as the beauty of the campus area, green lands in the campus, a vehicle for transportation within the campus, cafes and places to sit were important for their campus engagement. Regarding these factors, some of the students reported their views as follows:

"I think the campus area is quite a well-cared place, which makes me engaged with the university." (I2)

"Lack of a vehicle for transportation in the campus is the biggest problem I have experienced so far." (I14)

"Existence of places in the campus where I can spend my free time increases my engagement with the school." (I18)

It was seen that organizing the physical area in the campus in a way to make students pleased to have them feel themselves in peace is quite important for their campus engagement. In addition, some of the students, stating that the classroom where they took their courses were not the only thing that constituted their whole campus life and that the campus area influenced them to a great extent, reported their views as follows:

"If the campus were made up of just a building, then this would have negative influence on the time I spend in the campus as well as on my engagement." (I19)

"My university has a green campus land, and I really enjoy this scene on the road to my school. Even though I don't spend much time in the campus area, I am quite happy to pass through such an area while going to my school." (I17)

Besides the physical area in the campus, another important factor was related to the campus activities. These activities were regarded as one of the important dimensions of campus engagement which influence such psychological states as sense of belonging to the campus and valuing the campus/university. It was revealed that the campus activities were considered to be an important factor as they allowed the students to spend time in the campus especially except for the time they spent in class. Some of the students emphasized the importance of campus activities saying "*I3: I got sad when I couldn't join the school activities for such reasons as time limitation*", while some other students stated that the activities, organized in a limited time only in the Spring Term, constituted an important factor that engaged them to the campus the whole year.

"School activities, if spread throughout the whole year, will increase our engagement." (I8)

"There is no activity carried out in the campus in winter." (I14)

One student, emphasizing the importance of involving student groups in activities to be conducted not only as traditional Spring festivals but also in relation to theatre, cinema and photography, stated "*I10: Activities related to theatre and cinema have positive influence on my engagement*." It was also seen that besides the campus activities, such groups and communities as the university football team and student clubs increased the sense of belonging and influenced student engagement. Some of the male students mentioned this situation saying:

"I play in the university football team, and this increased my engagement." (I4)

"Playing in the university football team has much positive influence on me, and it is very nice to do something good for the school." (I12)

The students reported that they wanted to see the campus environment as a safe and peaceful place and that the factors threatening the campus security had negative influence on their campus engagement. In addition, the fact that the campus area was a safe and peaceful place allowed the students to participate in campus activities, to spend time in the campus and to focus more on their investments in their own learning. Moreover, the fact that the campus was a safe place influenced the sense of belonging to the campus. Some of the students stated reported their views as follows:

"Too many dogs found in the campus scare me." (I11)

"The large number of cars of foreigners (non-students) in the campus disturbs me." (I12)

Although the students did not spend much time in the campus, they wanted to feel they were in a big campus even only when they were going to their classes. It was seen that this situation was an important factor which played an important role not only in motivating the students to go to their classes but also in helping them develop the sense of belonging to the campus. Also, it was seen that the physical area of the campus had so much influence on the students that their failure to reach their faculties in the campus easily and comfortably had negative influence on them. Regarding this point, one student stated:

"I know that some of our friends have to go up the hill in the campus while going to their classes and that there is no vehicle for transportation in the campus; so for all such reasons, they don't fancy the campus at all." (I13)

One of the factors that allow experiencing the sense of belonging to the campus was found to be the fact that the students accommodated in the dormitory located in the campus. The students' accommodation in the campus not only helped them mingle with the campus but also allowed them to attach themselves to the campus in psychological terms. Regarding this point, one student stated:

"As I accommodate in the dormitory in the campus, I have easily internalized the school and view it as my home." (I13)

It was seen that the faculty area, where the students spent most of their time during the breaks between lessons, was another important factor that increased their campus engagement. In addition, it was seen that the campus area was as important for the students as the faculty environment. It was also observed that the students contacted with their faculties for a number of issues and that the faculty had a fairly important role in the learning processes of the students. In addition it was revealed that not only the campus-related factors but also those related to the faculty were important for developing the sense of belonging to the campus as well as giving value to the campus. In this respect, the fact that the faculty gave value to the student and made the necessary arrangements to please the students allowed them to feel the sense of belonging to the campus and to give value to the faculty. It was also found out that the faculty environment where the students spent time with their friends and which helped them relax psychologically and physically during the lesson breaks was quite important. The following statements revealed that the students had lots of expectations regarding the physical area of the faculty and that they gave importance to this situation by comparing their faculty with the other faculties in the campus:

"In my first year at university, the bad physical infrastructure of the faculty disengaged me from the school." (I6)

"Another faculty in the campus is much more well-cared and a lot better than our faculty, and when I go there, I feel myself special." (I2)

The interviews revealed that the students considered the campus environment to be different from class environment and that these two environments had different effects on their engagement. Therefore, the dimensions of campus engagement and class engagement were examined under separate themes. For this reason, the campus-related and faculty-related themes were formed within the scope of campus engagement, while the class-related factors were examined in a different dimension within the scope of class engagement.

Class Engagement

It was seen that the factors influencing class engagement were more in number when compared to the number of those influencing campus engagement and that the former factors were the primary ones influencing student engagement. In other words, it was found out that class engagement was the main component that formed student engagement. It was revealed that the faculty member's interaction with the students and the benefits of the course to the student were among the basic factors substantially influencing class engagement. The reason is that even though the factors related to the campus or to the faculty considerably influenced campus engagement, the factors related to the faculty member or to the class had influence not only on class engagement but also on campus engagement and thus directly on student engagement. Some of the students, pointing out how important class-related factors were in student engagement, reported their views as follows:

"Due to certain classes and related problems, I don't want to come to the school on certain days, and sometimes, I even want to drop out school." (I1)

"My engagement with the school was related to the classes." (I24)

It was also found out that the most important factor specifically for class engagement and generally for student engagement was the faculty member himself/herself. Although it was seen that a number of class-related factors influenced class engagement, the faculty member was found out to have a close relationship with several class-related factors. In this respect, the students stated that a number of factors were based on the faculty member and that many things could change if they liked the faculty member. The influence of the factors related to the faculty member on student engagement was found so prominent that the students thought the increase in their engagement was directly related to their liking the faculty member. Regarding this point, some of the students reported their views as follows:

"The most important reason for class engagement is the lecturer teaching the course. No matter how challenging the course is, if you like the lecturer teaching that course, you study harder and become successful." (I3)

"What influences my engagement with the class is just the faculty member." (I7)

In this respect, it was found out that though other factors related to the faculty member influenced the students' liking the faculty member, some of the students focused on the interaction established by the faculty member with them. However, according to most of the students, the most important

factors that influenced their liking the faculty member covered the value the faculty member gave to the students, his or her friendly and positive attitudes towards the students, his or her care for the their problems, his or her listening to the students as individuals and his or her respect for them. It was seen that failure of the faculty member to establish interaction with the students influenced them in many respects and decreased their engagement. Regarding the importance of the interaction between the students and the faculty member, some of the students reported their views as follows:

"There is a gap between the students and the lecturers; thus, I feel disengaged from the school." (I10)

"Lecturers should teach in an entertaining manner; they should demonstrate friendly attitudes towards students; they should give importance to us; and they should accept us as individuals." (I22)

Liking the faculty member had influence on a number of in-class and out-of-class cases such as attending classes, fulfilling their responsibilities regarding the course and making efforts to do their homework. Some of the students reported their related views as follows:

"If I like the lecturer much, I try to do the homework assigned by that lecturer and fulfill any responsibility he or she has asked me to do so." (I23)

"I fulfill the responsibilities and do the homework negligently if assigned by a lecturer whom I don't have a good relationship with, and I do not give the necessary importance to the homework or to my related responsibilities." (I19)

Although the field competency of the faculty member and the instructional methods and techniques the faculty member used had influence on some of the students' liking the faculty member, some other students focused only on field competency and on the methods and techniques used. In other words, regardless of whether the student liked the faculty member or not, field competency of the faculty member and the methods and techniques used by the faculty member in class were found to be an important factor for the students' class engagement. In addition, it was revealed that the students favored such applications as relating both the homework assigned and the course content to real life, giving weight to practice more than to theory, providing students with guidance and giving more priority to product-based tasks. Some of the students reported their related views as follows:

"If the lecturer is not competent, then this will have negative influence on our engagement with the class." (I3)

"The methods and techniques applied by the lecturers influence my engagement with class." (I8)

It was also seen that such factors as the faculty member's teaching the course in an entertaining manner and his or her caring for students by allocating extra time for this had considerable influence on the students' class engagement. It was revealed that the students were in need of a faculty member who would involve them in the learning process and thus who would make them active in class. Some of the students reported their related views as follows:

"I am increasingly engaged with a course whose lecturer is a role-model for me." (I17)

"In some cases, the only one who speaks all the time in class is the teacher himself or herself, and sometimes, even if they allow you to speak, they don't respect your views."
(I20)

Besides the faculty member, another factor important for student engagement was the students' belief in the potential contributions and benefits of the course. The faculty member and the contributions of the course were so much important for student engagement that these two factors were found to be the basic ones influencing student engagement. In other words, it was revealed that the students gave more importance to the course they found beneficial; that their engagement with that course thus increased more; and that the opposite case had negative influence on their engagement. This situation was also reflected upon the views of the students who reported their views as follows: "*I17: My engagement was sometimes influenced badly due to such courses which I thought would not contribute to me in any way.*", "*I16: I have to repeat some courses in the following academic year, especially those which I think will not be beneficial for me.*". It was found out that the potential benefits of the course were regarded as a factor important for the students in a number of cases such as fulfilling the course requirements, participating in class activities and making an effort to learn. Regarding this point, some of the students stated:

"The courses for which I made the biggest effort to do the homework assigned were those I believed to be beneficial." (I6)

"I don't force myself much to the homework that I believe will not be much beneficial for me." (I15)

Some students reported that the potential benefits of a course were more important than the faculty member teaching that course:

"If the lecturer fails to draw your attention to the course, I think his or her good communication with students will not be of much importance. What is primarily important is whether the course is beneficial for me or not." (I15)

"Courses out of my field do not arouse my attention in any way. Even if I like the lecturer teaching that course, I don't want to go into that class." (I11)

Nevertheless, many students stated that both liking the faculty member teaching a course and positive attitudes towards the faculty member were primarily more important than the potential benefits of that course and that the students had high levels of class engagement just because of the faculty member teaching that course even if the students were not much interested in that course. Some of the students reported their related views as follows:

"However much I dislike the course and however much indifferent to the course I am, the most important factor for my engagement with the course is the lecturer's respect to the class and to students." (I2)

"Although I like the course, I look forward to its end if I don't like the lecturer teaching that course." (I17)

The students put so much emphasis on the potential benefits of the course and on the faculty member teaching that course that in some cases, they compared the order of importance of these two factors and even provided related percentages:

"Attending the class willingly depends %30 on the course content and 60% on the lecturer teaching that course." (I4)

"My engagement with the class primarily depends on the lecturer and secondly to my interest in the course." (I1)

Besides all these factors mentioned above regarding class engagement, another factor to be taken into consideration is technology. When the campus-related and class-related factors were examined, it was found out that these factors were also the components constituting student engagement while technology was not a component forming student engagement but an important way of increasing student engagement. For this reason and in line with research purposes of the present study, the factor of technology was examined in detail as a separate dimension. It was seen that the factor of technology had a relationship with a number of factors such as the faculty member, the infrastructure of classrooms, faculty administration and individual characteristics of students. Considering all these relationships, the dimension of technology was classified as separate themes.

Engagement with Technology

Even though the dimension of technology could have been investigated within the scope of campus engagement and class engagement, it was examined as a separate dimension in line with the research purposes of the present study. However, as can be understood from the results obtained via the interviews, it was found out that the technology factor had substantial influence both on campus engagement and class engagement, that is, on student engagement. A great majority of the students reported that technology will increase engagement if technology is effectively integrated into class and that ineffective use of technology decreases engagement and causes students to get disengaged from the class. It was seen that the students' motivation decreased because of such cases as the incompetent faculty member's insistence on technology use and his or her failure in effective integration of technology into class and that these situations resulted in waste of time, distraction of attention and lack of confidence in the faculty member. In addition, the students, reporting that the faculty members used only such technologies as PowerPoint, stated "*I2: It seems wrong to me to teach the course using only PowerPoint.*" In addition, the students pointed out that the faculty members failed to use the PowerPoint technology more effectively and that their failure in effective use of such technologies had negative influence on their engagement.

"The lecturer's technology skills have influence on my interest in that course... Technologies used in class are limited to PowerPoint documents." (I24)

"Most of the lecturers are not competent in terms of technology skills." (I21)

"Sometimes, I say to myself "Today, I don't need to go to class because the lecturer can not do his job well; he just reads from the PowerPoint presentation." (I13)

A number of students participating in the study stated that different from the presentation tools, social network groups established in social networks like Facebook were frequently used especially as an out-of-class activity and as a supportive tool for the course. In addition, most of the students pointed out that these social network groups used as a support to the course increased their engagement. Regarding this point, some of the students reported their views as follows:

"When I contact with the lecturers via such environments as Facebook and Twitter and receive instant answers to my questions, both my motivation and my engagement with the class increase." (I2)

"In one of our lessons, we used Wiki. Such environments are beneficial for us in many respects because all students spend most of their free time on the Internet." (I5)

Although the students emphasized effective integration of technology and the importance of use of different technologies, most of them pointed out that technology use in classes was absolutely necessary and positively influential on their engagement. Some of the students reported their related views as follows:

"The lecturer's use of new technologies increases students' interest in classes." (I8)

"Courses which do not involve technology use do not increase our engagement." (I21)

On the other hand, some of the students stated that the primary factor was the faculty member. Some students pointed out that if the faculty member could teach the course well without using technology, if he or she was competent in the field and if he or she could apply the necessary methods and techniques, then it would not be compulsory to use technology in class. Some of the students reported their related views as follows:

"Lecturers who are not competent in the field should use technology in class." (I24)

"If the lecturer is knowledgeable and competent in the field, there is not much need for technology." (I20)

In this respect, it was seen that technology was influential on increasing student engagement and that this was based on the faculty member's competency in technology as well as on effective integration of technology. Some of the students, mentioning the role and influence of the factor of technology on student engagement, reported their related views as follows:

"Technology is beneficial only when it is used appropriately." (I2)

"If technology is being used, then it should be used appropriately." (I7)

"It would be better not to use technology if bad-quality slides were prepared and projected." (I17)

It was also found important that the technological infrastructure was established for the faculty member's competency and for effective integration of technology. In this respect, it was seen that not only the faculty members but also the students could have been influenced by the lack of technological infrastructure. It was reported that providing classrooms, faculties and the campus with the necessary technological infrastructure would have positive contributions to student engagement. Even though efficient technological infrastructure does not guarantee effective use of technology, it was seen that it was quite important not only for facilitating the students' responsibilities but also for their attitudes towards the university and faculty. In addition, it was revealed that providing the technological infrastructure as well as technical support was one of the priorities of effective integration of technology.

It was seen that technology, if used effectively, had positive contributions to student engagement and that it was not a must for most of the students. One of the students, stating that they could not be regarded as digital natives and that the following generation would need technology more, stated that: *“Not to speak of my age group, I think technology will be more effective in terms of the following generation’s engagement with classes” (I11)*. In other words, though not compulsory for student engagement, technology was one important way of increasing student engagement.

Consequently, it was found out that a number of factors ranging from the physical area of the campus to the faculty member were influential on student engagement however high their motivation in learning was before they started their university education. In other saying, it was seen that regardless of whether the students had the necessary skills and equipment regarding learning, it was possible to change their engagement positively or negatively due to a number of factors they were exposed to in the campus area. This result also provided important findings to prevent many of the obstacles to student learning with the use of these factors for the benefit of students.

In addition, it was found out that the factors determined in the present study were, specifically speaking, in relationship with the campus or with the class and, in general terms, with student engagement. For instance, while the campus activities were regarded as a factor underlying campus engagement and as well as student engagement. It was seen that campus engagement changed to a great extent in line with class engagement and that class engagement could change at the least with campus engagement. However, the interviews held with the students revealed that the major engagement was class engagement. It was seen that class engagement was basically influenced by the factors related to the faculty member, the class and the student. In other words, student engagement was formed to a great extent with class engagement and that the campus-related factors were those influential on the development of the sense of belonging to the campus/university and on giving value to the campus/university. Therefore, the factors influencing campus engagement and class engagement were examined under separate dimensions. In line with these findings, the important factors influencing student engagement and the relationships between them were explained within a framework as can be seen in Figure 1.

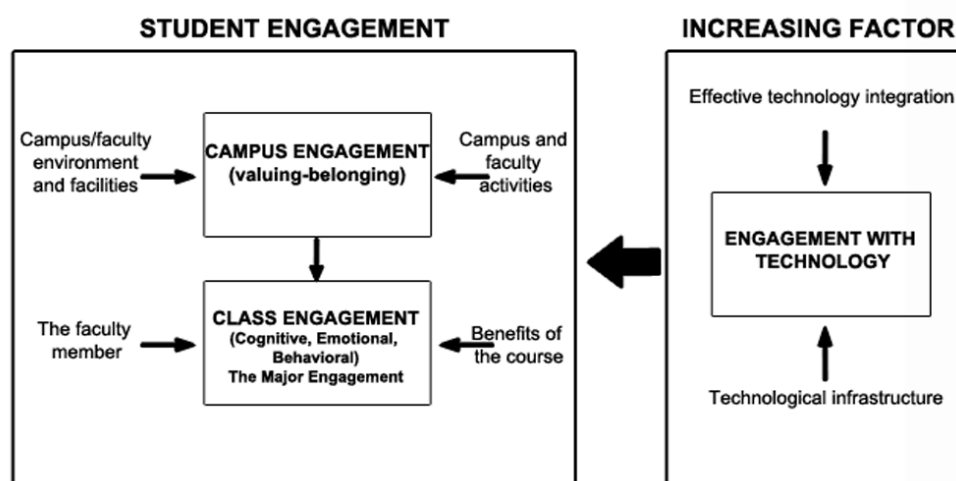


Figure 1. Factors Influencing Student Engagement and the Role of Technology in Student Engagement

Figure 1 demonstrates that the major engagement was class engagement which formed student engagement and which was influenced by a number of factors. In addition, it was seen that psychological states related to the sense of belonging to the campus/university and giving value to the campus/university were affected by a number of factors that influenced campus engagement. It was

also found out that campus engagement was influenced most by the activities and facilities provided in the faculty as well as in the campus. In addition, it was revealed that the dimension influencing student engagement to a great extent was class engagement because the most important thing for the students was to attend classes and to invest on their own learning, In this respect, the faculty member and the benefits of the course were the two prominent factors influencing class engagement and, in general terms, student engagement. It was concluded that technology is not essential to provide or increase student engagement and that it is a way of increasing student engagement considerably if a good infrastructure is maintained and if effective technology integration is achieved.

Findings Related to the Composition Data

The students were asked to write a composition regarding the role and influence of technologies used in their classes on student engagement. It was seen that the themes determined as a result of the analyses were related to class engagement. In this respect, three main themes were obtained from the data collected via the written compositions (see Table 4).

Table 4
Findings Related to the Role and Influence of Technology on Class Engagement

Main theme	Sub-theme	Concept	f
DIRECT EXPRESSION OF THE INFLUENCE OF TECHNOLOGY	Influence of technology on class engagement	Technology is influential on class engagement.	4
		Not the technology, but the lecturer and the benefit of the course are important for class engagement.	3
		Groups in environments such as Facebook help increase class engagement	1
	Influence of technology on attendance in classes	I attend classes more which involve effective use of technology (effective presentation)	1
		I don't attend classes willingly which involve ineffective and inappropriate use of technology	1
		There is more absenteeism in classes in which technology is not used.	1
INDIRECT EXPRESSION OF THE INFLUENCE OF TECHNOLOGY	Influence of technology on the course requirements	Doing my homework/responsibilities with the help of technology facilitates/makes attractive my job.	7
		I willingly do the homework given in courses which involve technology use.	2
		Technology increases engagement with responsibilities.	1
	I study enthusiastically for the exams in courses which involve technology use.	I receive higher grades in courses which involve technology use.	1
		Technology and visual richness increase my motivation, attention and interest.	12
		Classes which involve technology use are more entertaining	10
Influence of technology on teaching (effective technology integration)	Technology and visuals used make the classes more productive (make learning permanent)	8	
	Lack of technology use or ineffective use of technology leads to waste of time and a decrease in motivation in classes	6	
	Students are more active in classes which involve	5	

Main theme	Sub-theme	Concept	f
		effective use of technology.	
		Use of technological materials helps follow the lessons.	3
		Technology allows individual learning.	2
		Technology facilitates teaching.	1
		Technology contributes to students' participation in class.	1
SUGGESTIONS TO INCREASE ENGAGEMENT	Suggestions regarding the faculty member's competency in technology	It would be better for the lecturer to avoid technology use if he or she fails to use it effectively.	5
		Lecturers are not competent in using technology/preparing presentations, and they should be trained on technology use	3
		Technology should be used in a way to encourage student participation.	1
		The lecturer should use technology for the benefit of the students.	1
		It should be remembered that technology makes lecturers lazy and prevents them from developing themselves (in their own field of expertise).	1
	Suggestions regarding the technological infrastructure	Technology used in classrooms has become ordinary / lecturers should use different technologies to create students' interest.	3
		Lecturers should follow and use the technological renovations.	3
Lecturers should not teach courses only by relying on technology.		2	

As can be seen in Table 4, when the main themes, themes and concepts determined were examined, it was seen that some of the students made statements which directly defined the influence of technology on student engagement while some of the students made statements which indirectly defined the influence of technology on student engagement. The third main theme, according to the composition data (students suggested), was made up of "suggestions regarding technology to increase engagement". The students directly expressed the influence of technology on engagement. It was seen that the number of the students who believed technology increased class engagement was higher than that of the students who believed technology did not have much influence on engagement. However, considering the fact that, according to the composition data, there were more students who implied that technology increased engagement, it could be stated that most of the students thought technology made important contributions to the increase in engagement. A prominent point regarding these concepts was that some of the students thought the benefits of the course and the faculty member teaching that course were more important than everything. In addition, some of the students who were not against technology use yet who still favored the idea that technology was not indispensable reported their views as follows:

"Attending classes willingly and in pleasure depends on the course itself and on the lecturer giving that course...I don't think technology is essential for engagement." (C12)

"Technology is an important factor in most classes, but I don't think it has much positive influence on our interest in courses or on our willingness to attend classes." (C16)

It was also found out that the students directly expressed the influence of technology on their engagement and that the contributions of technology increased their engagement. In this respect, it was reported that technology had positive contributions to the course requirements and to the teaching of courses. It was seen that the students did their homework and fulfilled their responsibilities by using technology while meeting the course requirements and that technology facilitated their job. In addition, the students stated that attending classes preparedly and meeting the course requirements increased their class engagement. Some of the students reported their related views as follows:

"I enthusiastically did the homework assigned in classes which involved technology use. Also, I even make a big effort to do my homework using technology more. This actually shows that technology has made me enjoy the class." (C1)

"Doing our homework with the help of technology makes us more enthusiastic for classes." (C17)

The students not only mentioned the contributions and influence of effective use of technology on their engagement but also put forward related suggestions. The students' suggestions included clues regarding the increase in their engagement thanks to the concepts mentioned, and they drew attention to the current deficiencies involved in effective technology integration. Regarding this point, the students' views were predominantly found to be about the faculty member's technology use. Some of the students expressed their related restlessness as follows:

"Lecturers who do not know how to make use of technology fail either to turn on technological devices or to use them even if they turn on such devices. This not only leads to a decrease in our motivation but also results in waste of time, and I don't attend such classes willingly. That is, if technology is to be used, it should be used appropriately." (C1)

"If technology will be used in a way to serve its purpose, then I think it will be effective." (C4)

To conclude, when the themes and the main themes were examined, it was seen that the students directly expressed the role of technology in student engagement; the role and influence of technology on course requirements and on the teaching of that course were elaborated; and lastly, suggestions regarding technology integration were put forward. Although some of the students put more emphasis on the importance of the faculty member and the benefits of the course in student engagement than on the influence of technology, it was seen that generally speaking, technology had an important role and influence on student engagement. As a result of the findings obtained, a pyramid was used to explain the role and influence of technology - specifically speaking - on class engagement and - generally speaking - on student engagement (Figure 2).

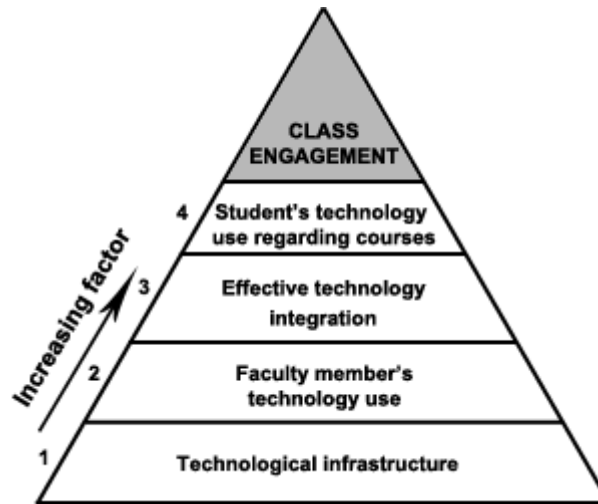


Figure 2. Role and Influence of Technology on Class Engagement (Technology-Engagement Pyramid or Technology on Engagement Pyramid)

The findings obtained revealed that in-class and out-of-class use of technology brought about a number of benefits to the students. As a result of all these benefits, it was seen that class engagement increased. However, as can be seen in Figure 2, certain factors should be taken into consideration to maintain the potential contributions of technology to class engagement. Technological infrastructure is found at the bottom (the first layer) of the pyramid. It is necessary to provide the technological infrastructure of both classrooms and of the faculty. The reason is that this layer constitutes the basis of all the other layers above. The second layer of the pyramid includes the faculty member's technological use. The faculty member is supposed to make use of technology both in class and out of class. In addition, the faculty member is also expected to avoid making the class environment ordinary by teaching the course in a way not only to use such presentation tools as PowerPoint but also to follow the technological innovations, to integrate these innovations into class, to use these innovations at appropriate times and to use different technologies appropriate to class environment. An ordinary uninteresting course is one of the most important factors that cause students to get bored and disengaged in class. Even though the faculty member's technology use is a prior condition, it is not sufficient for an effective integration of technology. Effective technology integration, the third layer of the pyramid, is the main layer that engages students with the class. The first and second layers are prerequisite for the third layer, yet the former two layers contribute far less to class engagement. In other words, even though the lower layers (the first two layers) of the pyramid were prerequisite for class engagement, it could be stated that the upper layers involve factors that increase class engagement. Lastly, it was seen that the students used technology to meet such course requirements as homework and that technology use not only facilitated their job but also increased their engagement as the class became more entertaining.

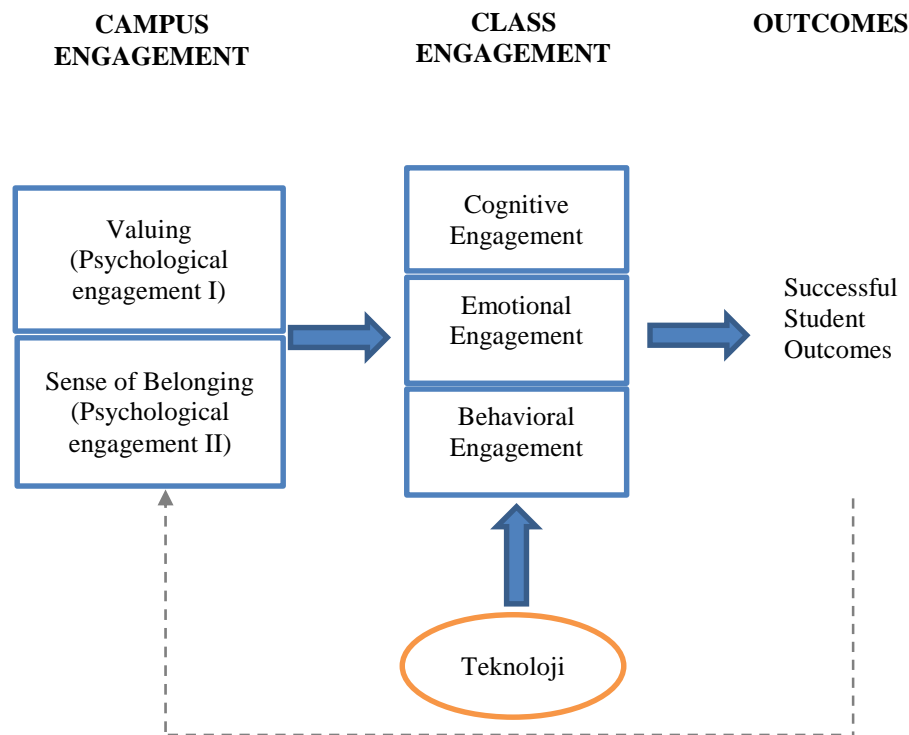


Figure 3. Campus-Class-Technology Theory (CCT Theory)

Following the evaluation of qualitative findings, CCT Theory presented in Figure 3 was developed. According to the theory, for successful student outcomes, the relationships between student engagement and technology were theoretically explained. In this respect, the value given by the students to university life and university education was among the important factors which helped the students have the sense of belonging to university, which allowed them to spend time in the campus and which resulted in increase in class engagement. Another factor influential on class engagement was technology. Effective integration of technology in class is important for increasing students' class engagement. An increase in class engagement not only increases students' level of academic achievement but also leads to positive outcomes. CCT Theory continues in the form of a cycle. In other words, academic achievement and positive outcomes have influence on the value students give to learning and to university as well as on the sense of belonging to university.

Discussion and Conclusions

The findings obtained via the written compositions and interviews held with different sample groups were evaluated within the context of the dimension of technology. The factors determined to be effective on student engagement based on the findings obtained via the interviews were examined under the dimensions of campus, class and technology. It was seen that the components constituting and influencing student engagement were found to be campus engagement and class engagement. While the dimension of technology could have been examined within the scope of campus engagement and class engagement, it was classified as a separate dimension in line with the research purposes of the present study. As the scope of the compositions covered only the role and influence of technology on class engagement, detailed findings were obtained regarding this.

When the views of the students interviewed were examined, it was seen that some of them had low levels of engagement; that some had moderate levels of engagement; and that only a few of them had high levels of engagement. The students had low levels of engagement due to some of the factors mentioned above. As for those who had high levels of engagement, they were engaged with learning either due to their individual characteristics or due to their exposure to the negative effects of all these factors. The interviews revealed that most of the students felt they belonged to the campus and that they held high levels of belief in campus/university values. However, the students reported that they, though temporarily, lost such feelings as the sense of belonging to campus/university and giving value to campus/university owing to some of the factors mentioned above. In other words, it could be stated that if these factors are not taken into consideration, students can fully develop the sense of belonging to the campus/university and give more value to the campus/university. Willms (2003) defines engagement as students' acceptance of school values, their sense of belonging to the school and their active participation in school activities. Voelkl (1996) considers school engagement within the scope of such themes as the sense of belonging to the school and giving value to the school. It could be stated that some of the factors, except for the class-related factors, considerably influenced such feelings of the students as the sense of belonging to the campus/university and giving value to the campus/university. In addition, it was obvious that class engagement had influence on such feelings as the sense of belonging to the campus/university and giving value to the campus/university. Also, the results obtained via the interviews held with the students helped determine what to do to increase their engagement even though there were factors reported by the students to decrease their engagement and to disengage them from the campus and from classes. Therefore, it could be stated that all the concepts and themes were the positive and negative factors influencing student engagement and that these concepts and themes provided clues regarding the components constituting the concept of student engagement. Besides campus engagement, the factors influencing class engagement were classified under three dimensions such as those related to the faculty member, those related to the class and those related to the student. Accordingly, liking the faculty member and the benefits of the course for the student were found to be the most important factors in student engagement, and a great majority of the students interviewed essentially mentioned these factors. It was concluded that although most of the interviews revealed that these two factors were in correlation and that they were the factors to be considered together to increase student engagement, the factors related to the faculty member were of primary importance. Even though other studies also determined the role of the faculty member or of the lecturer in student engagement (Bryson and Hand, 2007; Saeed and Zyngier, 2012; Steele and Fullagar, 2009; Zyngier, 2007), these studies did not provide as explicit results regarding this role as the present study did.

When the related literature is examined, it is seen that there are a number of factors associated with student engagement and effective on increasing student engagement. These factors include such variables as spending time in the campus (Nauffal, 2011), maintaining intrinsic and extrinsic motivation (Hufton, Elliott and Illushin, 2002; Saeed and Zyngier, 2012), achieving project-based and problem-based learning (Ahlfeldt, Mehta and Sellnow, 2005; Schlechty, 2001), sports clubs, tournaments and sports and gymnasium classes (Angus Busby, 2011), curiosity, interest, student-centered teaching, cooperative and interactive learning (Ang and Wang, 2006; Bouta et al. 2012; Chickering and Gamson, 1987; Neal, 2010), faculty-student interaction (Neal, 2010), lecturer-student relationship, group works, interesting learning activities, making learning important and valuable (Steele and Fullagar, 2009; Zyngier, 2007) and the teacher's effort to teach (Saeed and Zyngier, 2012). Beer, Clark and Jones (2010) determined the factors influencing student engagement as teacher participation, course design, class size, students' gender and students' age. For the purpose of increasing student engagement, Zepke and Leach (2010) suggested 10 activities which did not involve any technology-related factor. These activities included enhancing students' self-belief, providing students with the opportunity to study on their own, recognizing that teaching and teachers are

central to engagement, maintaining active and cooperative learning, providing students with opportunities for learning experiences, ensuring institutional cultures, investing on various supportive services, adapting to the changing expectations of students, providing students with the opportunity to become active citizens and providing them with the opportunity to have their own social and cultural gains. However, in related literature, the role of the faculty member and the benefits of the course were not found in other studies as prominent as it was in the present study. The reason for this situation could be said to be the factors of Turkish culture and the education system in the country. Another reason could be the fact that a number of cases related to the campus as well as to classes were examined in detail in the present study.

The findings obtained via the written compositions revealed that technology use in the teaching process contributed to the increase in student engagement. However, in order for technology use in class and in relation to the course to contribute substantially to the increase in student engagement, the technological infrastructure should be established, and effective integration of technology should be achieved; otherwise, as it was found in the present study, student engagement is influenced negatively. When the findings obtained via the interviews and the written compositions were taken into consideration together, it was seen that use of technology in instructional activities constituted an important factor for student engagement. It was found out that for most of the participating students, use of technology in class was not an indispensable factor for student engagement. In addition, most of the students reported that effective use of technology at appropriate times would not only contribute much to student engagement but also constitute an important way of increasing student engagement. In other saying, although technology was not a component that led to the major engagement for students, it was found to be a factor increasing engagement to a great extent (Reynard, 2007). On the other hand, it was revealed that failure to integrate technology effectively into educational environments was likely to cause students to get disengaged from the class. A great majority of the students stated "if not used effectively, it would be better to avoid using technology." This statement was also found to be the one summarizing the role and influence of technology on student engagement. In other words, if technology is used effectively, it affects student engagement positively; and if not, it has negative effects on student engagement. This situation was found to have a relationship with the faculty member's technology use as well as with the technological infrastructure. When the related literature is examined, it is seen that there is not much detailed research on the role and influence of technology on student engagement. However, it is reported in related literature that effective integration of technology into such in-class and out-of-class situations such as campus activities (Ericson, 2011), online discussions (Reynard, 2007; Veira et al. 2014), 3D virtual environments (Bouta et al. 2012), web-based learning (Chen, Lambert and Guidry, 2010), interactive whiteboard (Berque, 2004; Morgan, 2008) and providing feedback (Hepplestone, Holden, Irwin, Parkin and Thorpe, 2011; Xu, 2010) contributes to student engagement. In addition, Nelson Laird and Kuh (2005) found a strong positive relationship between student engagement and use of information technologies for educational purposes.

In the present study, it was found out that technology contributes to student engagement via such digital environments as Facebook, Twitter and Wiki. It was seen that students do sharings with the help of social groups formed especially in these environments and that student engagement increases thanks to active participation of the faculty member. Also, as reported in related literature, similar findings revealed that use of social networks as part of classes contributes to student engagement (Cole, 2009; Junco, 2012; Junco, Heiberger and Loken, 2011; Heiberger and Harper, 2008; Veira et al. 2014). However, it should be remembered that all these results require effective integration of technology, thanks to which student engagement will considerably increase (Hancock and Betts, 2002; Hede, 2002; Mcgrath, 1998).

While findings related to the factors influencing student engagement were obtained, it is also seen that there were components constituting student engagement as well. In other words, it could be stated that student engagement can be increased considering not only the factor of technology but also other factors both constituting student engagement and influencing campus and class engagement. On the other hand, it is difficult to claim that campus-related and technology-related factors could substantially increase student engagement without considering the class-related factors. The reason is that the primary one of the components forming student engagement is class engagement. Finally, future studies could examine both the factors obtained in the present study and the framework covering the relationship between these factors and student engagement (Figure 1) with the help of a statistical technique such as path analysis.

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GENİŞLETİLMİŞ ÖZ

Öğrenci bağlılığı Gunuc ve Kuzu (2014) tarafından: *Öğrencinin başarılı öğrenme çıktıklarına ulaşmak için öğrenme sürecine, sınıf içi/dışındaki akademik ve sosyal etkinliklere psikolojik, bilişsel, duyuşsal, davranışsal boyuttaki tepkilerinin ve katılma enerjilerinin niteliği ve niceliği* olarak tanımlanmıştır. Eğitimciler son yıllarda düşük düzeyde öğrenci bağlılığı, erken yaşta okulu terk etme, zayıf öğrenci davranışı ve düşük akademik başarı düzeyi sorunlarına dikkat çekmiştir (Harris, 2008). Bu bağlamda öğrenci bağlılığı eğitimin ve eğitim sisteminin önemli konularından biridir. Öğrencilerin kampüse ve derse bağlılıklarını artırmak için birçok faktörden söz edilebilir. Öğrencilerin istekle, hevesle, eğlenerek öğrenmeleri ve buna ilişkin ortamların düzenlenmesi önem taşımaktadır. Bu noktada dijital yerlilerin diğer nesillerden farklılaşan yönü olarak teknolojinin göz önünde bulundurulması önem taşımaktadır. Teknolojinin günümüz öğrencilerinin yaşamlarında önemli bir yeri olması ve her girdikleri ortamda teknoloji ile iç içe olmak istemeleri, okul ortamlarında da etkili teknoloji entegrasyonlarının gerçekleştirilmesini gerekli kıldığı düşünülmektedir. Bu araştırmanın genel amacı öğrenci bağlılığını etkileyen faktörleri ve teknolojinin öğrenci bağlılığındaki rolü ve etkisini belirlemektir.

Çalışma, nitel araştırma yaklaşımlarından biri olan gömülü kuram ile desenlenmiştir. Gömülü kuram, anlamlı bir konu hakkında bir etkileşim, bir eylem, bir süreç ya da kapsamlı bir kavramın açıklandığı bir kuram üretmek için kullanılan nitel bir yaklaşımdır (Creswell, 2008). Araştırmanın katılımcıları 2012-2013 öğretim yılı bahar döneminde Anadolu Üniversitesi Eğitim Fakültesi'nin 3. ve 4. sınıflarında öğrenim gören ve araştırmaya katılmaya gönüllü olan öğretmen adayları arasından rastgele seçilmiştir. Katılımcıların 3. ve 4. sınıflardan seçilmesinin nedeni; araştırmanın amaçları doğrultusunda öğrencilerin kampüse ve derslere yönelik deneyimlerinin olmasının daha detaylı veriler elde etmede önemli görülmesi nedeniyledir. Araştırmanın katılımcılarını, yüz yüze görüşmeler için 25 öğretmen adayı ve kompozisyonlar için 20 öğretmen adayı olmak üzere toplamda 45 birbirinden farklı öğretmen adayı oluşturmuştur. Katılımcıların kimlikleri saklı tutulmuş ve verilerin araştırmada kullanılacağı konusunda katılımcılardan yazılı ve sözlü izinler alınmıştır.

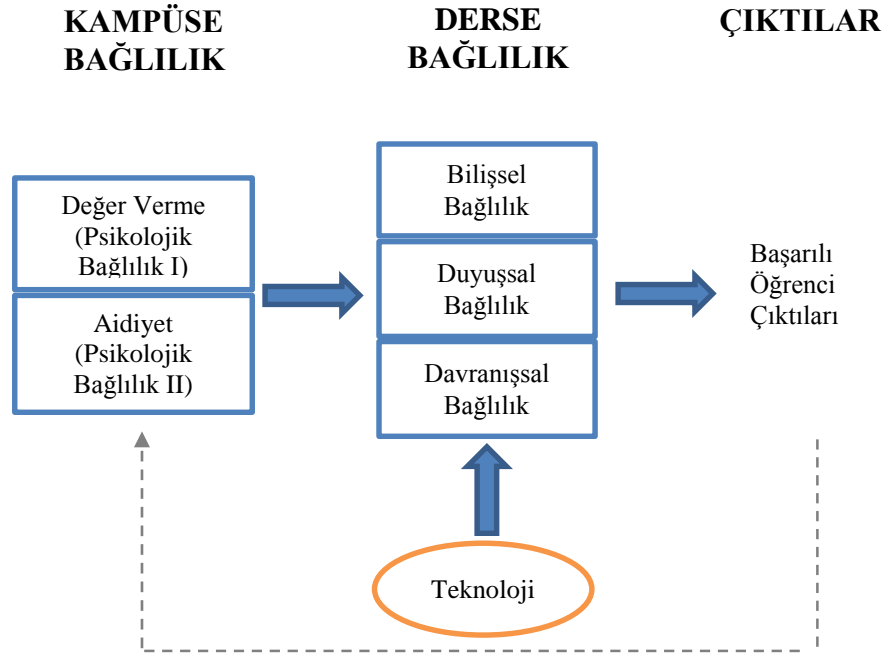
Nitel verilerin analizinde görüşmelerden ve kompozisyonlardan elde edilen veriler içerik analizi tekniği ile kodlanmıştır. Bu kodlama sonucunda ana temalar, alt temalar ve kavramlar oluşturulmuş ve buna ilişkin bulgular tanımlanarak yorumlanmıştır. İçerik analizinde; verilerin kodlanması, temaların

oluşturulması, kodların ve temaların düzenlenmesi, bulguların tanımlanması ve yorumlanması aşamaları izlenmiştir (Corbin ve Strauss, 2007). İçerik analizi süreci iki alan uzmanı tarafından yapılmış ve temalarda görüş birliği sağlanıncaya kadar değerlendirme devam etmiştir. İçerik analizi bittikten sonra temalara ilişkin katılımcı ifadeleri doğrudan alıntılarla raporlaştırılmıştır.

Görüşme bulgularında ortaya çıkan öğrenci bağlılığı etkileyen faktörler kampüs, ders ve teknoloji boyutları altında incelenmiştir. Öğrenci bağlılığını oluşturan öğelerin kampüs ve derse bağlılık olduğu belirlenmiştir. Teknoloji boyutu kampüs ve derse bağlılık kapsamında ele alınabileceken bu çalışmanın amaçları doğrultusunda ayrı bir boyut olarak sınıflandırılmıştır. Kompozisyonların sadece teknolojinin derse bağlılıktaki rolü ve etkisi üzerine yapılmış olması nedeniyle bu bağlamda detaylı bulgulara ulaşılmıştır. Kompozisyon bulgularının değerlendirilmesi sonucunda teknolojinin ders işlenişinde ve ders yükümlülüklerinin yerine getirilmesinde öğrenci bağlılığının artırılmasına katkı sağladığı anlaşılmıştır. Ancak teknolojinin derste ve derse ilişkin kullanılmasının öğrenci bağlılığının artırılmasına yüksek düzeyde katkı sağlaması için teknoloji alt yapısının sağlanması ve etkili bir teknoloji entegrasyonunun şart olduğu aksi taktirde öğrenci bağlılığının bu durumdan olumsuz etkilendiği belirlenmiştir.

Görüşme ve kompozisyon bulguları birlikte değerlendirildiğinde teknolojinin eğitim ve öğretim etkinliklerinde kullanılmasının da öğrenci bağlılığında önemli bir faktör olduğu görülmüştür. Çoğu öğrenci için derste teknoloji kullanımının öğrenci bağlılığı için olmazsa olmaz bir faktör olmadığı anlaşılmıştır. Bunun yanında teknoloji kullanımının gerekli yerlerde ve etkili şekillerde kullanımının öğrenci bağlılığına çok katkı sağlayacağı ve öğrenci bağlılığını artırmanın önemli yollarından biri olacağı birçok öğrenci tarafından ifade edilmiştir. Yani birçok öğrenci için teknoloji esas bağlılığı oluşturan bir öğe olmasa da bağlılığı önemli ölçüde artıracak bir etken olarak ortaya çıkmıştır. Buna karşın, teknolojinin etkili bir şekilde eğitim ortamlarına entegre edilememesinin öğrencinin dersten kopmasına neden olabileceği sonucuna da varılmıştır. Öğrencilerin çoğu, "teknoloji etkili kullanılmayacaksa hiç kullanılmamasının daha iyi olacağı" yönünde görüş bildirmiştir. Bu sonuç aynı zamanda teknolojinin öğrenci bağlılığındaki rolü ve etkisini özetleyen bir ifade olarak belirlenmiştir. Yani teknoloji etkili kullanıldığında öğrenci bağlılığını olumlu, etkili kullanılmadığında ise öğrenci bağlılığını olumsuz olarak etkilemektedir. Bu durumun yine öğretim elemanının teknoloji yeterliği ve teknoloji alt yapısı ile ilişkili olduğu da belirlenmiştir.

Bu çalışmada teknolojinin öğrenci bağlılığında Facebook, Twitter, Wiki gibi dijital ortamlarla katkı sağladığı da belirlenmiştir. Özellikle bu ortamlarda kurulan gruplar aracılığı ile paylaşımların yapıldığı ve özellikle öğretim elemanının da aktif katılım şartıyla öğrenci bağlılığının arttığı görülmüştür. Her ne kadar öğrenci bağlılığını etkileyen faktörler doğrultusunda bulgular elde edilse de aynı zamanda öğrenci bağlılığını oluşturan öğelerin de ortaya çıktığı görülmektedir. Yani sadece teknoloji faktörü ile değil öğrenci bağlılığını oluşturan kampüse ve derse bağlılığı etkileyen faktörlerin de dikkate alınmasıyla öğrenci bağlılığının artırılacağı söylenebilir. Ancak bu noktada derse ilişkin faktörler göz önünde bulundurulmadan kampüs ve teknolojiye ilişkin faktörler ile öğrenci bağlılığının önemli ölçüde artırılacağı söylemek güçtür, çünkü öğrenci bağlılığını oluşturan öğelerden öncelikli ve esas olanı derse bağlılıktır.



Şekil 1. Kampüs-Ders-Teknoloji Kuramı

Şekil 1’de görüldüğü gibi öğrenci bağlılığını anlamak ve açıklamak için Kampüs-Ders-Teknoloji Kuramı geliştirilmiştir. Bu kuram ile öğrenci bağlılığının bileşenleri ve boyutlarının yanında, bunların teknoloji ve öğrenci başarısı ile ilişkisi de açıklanmaya çalışılmıştır. Bu anlamda kampüse bağlılık kapsamında yer alan öğrencinin üniversite yaşamına ve üniversite eğitimine değer vermesi, kendini üniversiteye ait hissetmesi ve kampüste zaman geçirmesi, derse bağlılığın artırılmasında ve devamında önemli faktörlerdir. Derse bağlılığa etki eden diğer bir faktör de teknolojidir. Teknolojinin derse etkili entegrasyonu öğrencinin derse bağlılığının artırılmasında oldukça önemlidir. Kuşkusuz teknolojinin yanında başka artırıcı ve kolaylaştırıcı faktörler de sürece aynı paralelde dahil edilebilir. Kampüs, teknoloji ya da derse ilişkin faktörlerin katkıları ile derse bağlılığın artması, öğrencinin akademik başarısının artmasına ve süreçte olumlu çıktılardan alınmasına katkı sağlayabilmektedir. Kampüs-Ders-Teknoloji Kuramı’nın bir döngü şeklinde devam ettiği söylenebilir. Bir başka deyişle, başarılı akademik çıktılar, öğrencinin öğrenmeye ve üniversiteye verdiği değeri, aidiyet duygusunu ve derslere daha çok bağlanmasını artırabilmektedir. Kampüse ve derse ilişkin olumsuz faktörlerin, öğrenci bağlılığındaki olumsuz etkisi öğrencinin akademik başarısına olumsuz olarak etki etmekte ve öğrenci-üniversite arasındaki ilişkinin bozulmasına neden olabilmektedir. Bunun sonucunda kampüs ve ders haricindeki başka dış faktörlerin de katkısı ile öğrencide kopma, terk etme ya da okuldan uzaklaşma yaşanabilmektedir. Sonuç olarak geliştirilen kuram, genel anlamda değerlendirildiğinde öğrencinin derse bağlılığı, başarılı çıktılardan alınmasında ana faktördür. Kampüse ilişkin faktörlerin ise öğrencinin psikolojik durumunu iyileştirmede ve öğrenci bağlılığını artırmada önemli bir destekçidir. Diğer bir destekçi de derste teknoloji kullanımınıdır. Teknoloji ile öğrencilerin öğrenme sürecinde daha az sıkılması sağlanabilmekte ve sürecin daha eğlenceli geçmesi sağlanarak daha etkin öğrenmeler gerçekleştirilebilmektedir.