Opinions of Preservice Information Technologies Teachers on Virtual Classroom and Implementations

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ABSTRACT

The purpose of this study is to determine the opinions of preservice information technologies teachers on virtual classroom and its implementations. The study method is phenomenology method. Student opinions were grouped in two themes as positive and negative. The majority of the students stated that they found the implementation beneficial and nice and that it is time and space independent. That it has system structure that is effective, entertaining, economic and useful in educating and teaching and that it offers a different educational setting are other opinions that were emphasized. Thus, it can be assumed to be a positive implementation. The majority of the students have a negative opinion on this implementation due to technical and hardware problems, being ineffective and failing to be disciplined and serious. Also, that the implementations are boring, they have deficiencies, they are inconvenient for applied courses and that face-to-face education is better are among the other common opinions.

Key words: Virtual classroom, virtual learning settings, Information Technologies, preservice teacher

Bilişim Teknolojileri Öğretmen Adaylarının Sanal Sınıf ve Uygulamalarına Yönelik Görüşleri

ÖZ

Araştırmanın amacı, Bilişim Teknolojileri öğretmen adaylarının sanal sınıf ve uygulamalarına yönelik görüşlerini belirlemektir. Araştırmanın yöntemi, fenomenoloji nitel araştırma yöntemidir. Araştırmaya katılan öğrencilerin görüşleri olumlu ve olumsuz olmak üzere iki ana temada toplanmıştır. Öğrencilerin çoğunluğu bu uygulamayı yararlı ve güzel bulduğunu, zamandan ve mekandan bağımsız olduğunu belirtmişlerdir. Eğitim ve öğretimde etkili, eğlenceli, ekonomik ve kullanışlı bir sistem yapısının olması ile farklı bir eğitim-öğretim ortamı sunması da diğer üzerinde fazla durulan görüşler arasındadır. Bu açılardan

olumlu bir uygulama olduğu söylenebilir. Öğrencilerin çoğunluğu teknik ve donanım sorunu, etkili olamama, disiplinli ve ciddi olmama sebeplerinden bu uygulamaya yönelik olumsuz görüşe sahiptirler. Ayrıca bu uygulamaların sıkıcı, eksikliklerinin olması, uygulama derslerine uygun olmaması ve yüz yüze eğitimin daha iyi olması diğer çoğunlukta olan görüşlerdendir.

Anahtar Kelimeler: Sanal sınıf, sanal öğrenme ortamları, bilişim teknolojileri, öğretmen adayı

1. INTRODUCTION

The internet and WWW technology has substantially changed our lives. Education uses web-based systems in every field such as service and communication. These changes and necessities in the internet and Web applications have led to many changes and developments in education. In education, knowledge is supported by web pages and most of these are provided on the internet. Information on the internet is given most easily through web pages (Çevik, 2008: 31). Access to course materials and syllabi was enabled by creating and using learning settings through the internet/web (Özkök, 2009: 477).

By going beyond conventional implementations, there has been a tendency towards virtual classrooms which embrace many implementations of technology. Virtual classrooms, in which educational strategies and anxieties are low and where modern information-communication technologies, public network (e-mail, teleconference, news groups etc.) and online tools are used to increase learning success, were created (Atıcı, 2007: 50). In the learning-teaching process, with the use of computer settings new learning opportunities along with virtual education and learning settings (environments) gained importance.

Virtual learning settings; are learning-teaching tools that adapt computers and internet technologies to the learning process and which aim at furnishing students with learning experiences (Atıcı, 2007: 43). Virtual learning settings are an integration made by electronic components which involve teachers, online learning experiences of students and which they interact in (Koşaner, 2007). The purpose of the virtual learning setting is to develop and support the individual learning and working processes of students (Van Raaij & Schepers, 2008: 839; Stricker, Weibel, & Wissmath, 2011: 495). Students join virtual communities to make discussions, share their interests, develop their social relationships and explore new identities. A social-emotional-technological development takes place (Annetta, Murray, Laird, Bohr, & Park, 2008: 7).

Because the virtual learning setting is a software system that systematically spreads the content and facilitates the learning experience around the content and which integrates many different tools (Weller, 2007: 5), it can be used to assist learning states that have changed from traditional learning to offline, distant education and online learning (www.jisc.ac.uk, 2011). A virtual learning setting is a web-based communication platform that allows students to access to various learning tools such as program information, course content, teacher assistance, discussion boards, document sharing systems and learning resources without any time and place limitations (Van Raaij & Schepers, 2008: 839).

As the traditional education model which takes place at the same time, at the same place with only several people transferred to a new teaching model which takes place at any place, at any time with everyone, this new model offers students better opportunities about gaining information and actively communicating with other students and teachers (Hsiao, Chuang, Huang, & Wu, 2010). While it facilitates information sharing and access, it enables most of the students to interact outside the classroom (Çiçek & Yazar, 2013). Students can talk with each other on web-cams, use various textual expressions, work together in their rooms like they are having a face-to-face lesson in the classroom (Parker & Martin, 2010).

Because communicative effectiveness in learning is achieved with the high number of communication channels, teaching-learning processes should be supported by audiovisual aids and transferred into settings where students can better express themselves (Mutlu, Gümüş, & Dinçer, 2005). This will be achieved in virtual classrooms which are online settings where students and teachers synchronically use sounds, videos, text chats, interactive white boards, applications sharing's and instant attendance recordings for communication (Parker & Martin, 2010).

1.1. Purpose of Study

The purpose of this study is to determine the opinions of preservice Information Technologies teachers on virtual classrooms and their implementations. With respect to this general purpose, answers to questions on how student opinions on virtual classrooms and its implementations change according to gender and classroom level were also sought.

2. Method

The phenomenology method, one of the qualitative research methods, was used in this study. The essence of the individual's or group's experience on the phenomenon is defined through phenomenological analysis (Patton, 2014) The content analysis method was used to define the variety and processes of qualitative analysis that follows an inductive approach. Content analysis is the compilation of the efforts to reduce and interpret qualitative data for determining basic consistencies and meanings (Patton, 2014: 453).

2.1. Population and Sample

Students studying in the department of Computer Education and Instructional Technologies (CEIT) constituted the population of this study. The sample consists of students studying in the CEIT department in any three universities in Turkey. The convenient sampling method was used in selecting the sample and the purpose was to collect data from a sample where the researcher can easily access and won't encounter problems related to transportation and permission (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2016). Because there are no rules in qualitative studies to determine the sample size (Patton, 2014: 244), the study was carried out with 188 volunteer students based on the

convenient sampling method. Freshman students were not included in the study because they were considered not to have experiences on virtual classrooms and implementations.

Table 1: The personal details of students within the study group

Gender	**f**	**%**
Male	95	50,5
Female	93	49,5
Class		
II. class	65	34,6
III. class	63	33,5
IV. class	60	31,9
Total	**188**	**100,0**

50.5% of the students participating in the study are male and 49.5% are female. 34.6% of the students are in year two, 33.5% are in year three and 31.9% are in year four.

2.2. Data Collection and Analysis

The data collection instrument in phenomenological studies is interview. A trust and empathy based communication setting is provided for the interviewed individual and a data analysis process is conducted to reveal experiences and meanings. Data are conceptualized with the content analysis and themes are created for a phenomenological definition. The results are presented with a descriptive expression and quotations are made. Findings are explained with the created themes and patterns (Yıldırım & Şimşek, 2011: 74-75).

Various themes were created by interpreting the data collected through content analysis and semi-structured interview form. At the first stage of the analysis the interview forms that the students filled in were numbered and inputted to the computer. The number and letter used while numbering the forms states the student and his/her line, the second number states classroom level, the final letter states gender (S1-2M, S2-2F...). In the following stage, the answers were examined and open coding was done, similarities/differences were determined through this coding and categories were set. Student answers that can best represent each category were selected. The categories set after the content analysis and student answers were presented to another instructor specialist in the field of virtual classroom and implementation and was asked to place them under the related categories. The categories took their final forms after this. The distribution of the students, who participated in creating each theme, based on gender and classroom variables were also expressed in number. Thus, reliability of the analysis was increased, plainness was decreased and comparisons between the themes were facilitated (Yıldırım & Şimşek, 2011: 242-243).

3. Findings

Student opinions on how they found the virtual classroom implementations were grouped in two themes as positive and negative. These opinions were interrelated according to gender and classroom level. The students participating in the study expressed opinions for more than one theme. For this reason the number of loading on each theme is more than the number of participants.

Gender and class level comparisons of students who stated positive opinions about virtual classroom and implementations are given on Table 2.

Table 2*:* Distribution of Positive Opinions for Virtual Classroom and Implementations According to the Class and Gender Variable

No	Positive Opinions	Gender		Class			Total (f)
		F (f)	M(f)	2(f)	3(f)	4(f)	
1	Being entertaining	5	7	5	4	3	12
2	Being appropriate for theoretical-verbal courses	1	2		2	1	3
3	Expressing oneself well	1	-	-	1	-	1
4	Increasing self-confidence	-	1	-	1	-	1
5	Being a comfortable setting	3	4	1	5	1	7
6	Offering equal opportunity in education	1	-	-	1	-	1
7	Being time-independent	6	7	-	8	5	13
8	Being space-independent	8	12	1	13	7	20
9	Enabling savings-being economical	7	5	-	7	5	12
10	Beneficial-good implementation	41	22	30	22	11	63
11	Enabling communication	1	3	1	3	-	4
12	Enabling active learning-participation	1	1	1	1	-	2
13	Being a different educational setting	3	8	3	6	2	11
14	Increases efficiency-efficient	4	3	1	3	3	7
15	Flexible setting	2	1	-	2	1	3
16	Being a virtual setting	-	2	1	1	-	2
17	Individual learning	-	1	-	-	1	1
18	Permanent learning	2	1	1	2	-	3

19	Intriguing	1	2	1	1	1	3
20	Being advantageous than traditional classrooms	3	1	-	1	3	4
21	Practical system	4	6	3	1	6	10
22	Effectiveness in learning-teaching-education	4	8	4	3	5	12
	Total (f)	98	97	53	88	55	

Opinions of students who found virtual classroom and implementations positive were gathered under the themes **"being entertaining, being appropriate for theoretical-verbal courses, expressing oneself well, increasing self-confidence, being a comfortable setting, offering equal opportunity in education, being time-independent, being space-independent, enabling savings-being economical, beneficial-good implementation, enabling communication, enabling active learning-participation, being a different educational setting, increases efficiency-efficient, flexible setting, being a virtual setting, individual learning, permanent learning, intriguing, being advantageous than traditional classrooms, practical system, effectiveness in learning-teaching-education"**. Loadings of gender and classroom distributions of the students related to these themes are given on Table 2. According to the table, the majority of the students stated that they found the implementation beneficial and good and that it is time and space independent. That it has system structure that is effective, entertaining, economic and useful in educating and teaching and that it offers a different educational setting are other opinions that were emphasized. In addition, male students were observed to state more positive opinions than female students and students studying in year three stated more positive opinions than the students studying in other class levels. Thus, it can be assumed to be a positive implementation.

When respect to the virtual classrooms and implementations **"being entertaining"** theme, which was among the majority of the positive opinions, male students gave more positive opinions than female students. Year two students stated more positive opinions than the students studying in other class levels. Both year two and male students stated that this implementation is entertaining. Thus, it can be said that it is an entertaining implementation. Various student opinions giving reference to this theme are:

S63-3F. "It offered us an entertaining and different learning style."

S69-4M. "I found it good because it made teaching entertaining."

S160-2M. "It is an educational and entertaining implementation."

Male and year three students supported the **"being appropriate for theoretical-verbal courses"** theme more. It was observed that especially male students and year three students stated that the implementation is more appropriate for theoretical-verbal courses. In addition, a female student in year three stated the opinion **"expressing oneself well"** and a male student stated the opinion **"increasing self-confidence"**. Various opinions giving reference to student opinions that express this are:

S67-4M. "...Some courses are usually appropriate for theoretical courses."

S4-3F. "It is a good implementation for active participation, I expressed myself better."

S11-3M. "It is a great implementation; it increases the students' self-confidence..."

Based on these opinions, it can be said that this implementation is more appropriate for theoretical-verbal courses, increases the individual's self-confidence and the student can express himself better.

Year three and male students stated that the virtual classroom and implementations are a **comfortable setting**. That the virtual classrooms offer a comfortable setting can be considered as a positive indicator. Some student opinions that support these opinions can be listed below:

S39-3F. "...Distance education is a good implementation for me. Because I can easily join the lesson in my home setting."

S109-4F. "...it gives the opportunity to listen to the lesson in a comfortable setting."

S213-2M. "It is a setting where students can behave and learn more comfortably."

The student coded S6-3F. stated that *"...I think it is a very beneficial and necessary implementation because carrying out education in a virtual setting in distant education enables equal opportunity in education"* and underlined that virtual classroom and implementations **offer equal opportunity in education**. Another student (S89-4M) stated that *"It is an implementation that positively affects individual learning speed"* and emphasized that virtual classroom and implementations promote **individual learning**. With respect to these opinions, virtual classroom implementations can be considered to promote both individual learning and equal opportunity in education.

The majority of the students emphasized the **"being time-independent"** and **"being space-independent"** themes of virtual classroom and implementations. Male students and years three students underlined in their opinions that it is a positive indicator that these implementations are independent from time and space. Being independent from time and space can be significant advantages of this implementation. Various student opinions that helped these to be one of the most important features are:

S29-3F. "It is advantageous because it is space and time independent."

S42-3M. "It enables easy education because it is time and space independent."

S80-4F. "It rather relieves the students with respect to time..."

S85-4M. "I found it quite well. I used it efficiently without any space and time limitations."

S43-3F. "I found it successful. It is a good implementation because we attend it without any space limitations."

S44-3F. "I found it good because it gave me the opportunity to participate in education at home."

S50-3F. "...it can be used by students who have problems with compulsory attendance."

S97-4M. It is a beneficial implementation because it gives the opportunity to use learning experiences that are limited within the school in all areas of life."

The majority of the students stated that virtual classroom and implementations enable savings from various perspectives and are economical implementations. Female students were observed to emphasize

the **"enabling savings-being economical"** theme than male students and year three students emphasized it more than the students in other class levels. Various opinions of the students are:

S40-3F. "...it enables saving from time. There is no wasting time on road in the virtual classroom."

S57-3F. "I found it successful because we don't spare extra time for this. There are no expenses (transportation)."

S62-3F. "It saves on time and is economic."

S66-4M. "It is useful, it enables saving from time and space."

S76-4F. "It was very convenient and economical."

S113-4M. "...many materials that I can't find are ready and all activities are carried out with no expenses."

It was observed that the common opinion of the students indicated that virtual classroom is a **beneficial and good implementation.** It was observed that female students and year two students found the implementation more beneficial than the other students. Various student opinions emphasizing this theme are:

S46-3F. "It is a well implementation."

S47-3F. "It was wonderful. It made contributions to us."

S136-2F. "It offered advantage because we considered it as a beneficial course."

S168-2F. "I found it very well. There are of course disadvantages but I believe it is very necessary in today's digital age."

S173-2F. "It is a beneficial implementation."

One other opinion is **"enabling communication"**. Male students stated that communication is enabled more than female students; and year three students stated it more than the students in other class levels. That virtual classroom and implementations enable communication can be stated based on student opinions. Various statements cited directly from student opinions are given below:

S9-3M. "It is a perfect implementation; it is nice receiving the course with friends through a social activity."

S32-3M. "It was good for communication and team spirit among the groups."

S144-2M. "...it offers convenience in communication and information transfer."

It was observed that there was a male student in year two and a female student in year three stating that **active learning and participation is enabled**. It can be said that, although at a low level, active learning and participation is enabled through this implementation. Student statements supporting this opinion are:

S59-3F. "I think active learning takes place because it offers hyper settings..."

S152-2M. "It is very entertaining and everyone can actively participate."

It was observed that, with respect to virtual classroom and implementations, students grasped the opinion that there is a **different educational setting**. It was observed that especially male students studying in year three believed more than the other students that the setting is different and that this difference has a positive effect. Various student opinions giving reference to this opinion are:

S14-3M. "The virtual classroom implementation is an implementation that diversifies education and increases efficiency."

S35-3M. "It was a different educational setting for us, I believe that more effective educational settings are created through technology."

S155-2F. "It was a different experience. We learnt how it is through practice and experience."

S172-2F. "We saw the distant education setting. We got to know different settings because instructors from other universities attended our lessons."

It was observed that female students, who thought virtual classroom and implementations are effective because they are **efficient** and **flexible**; and male students, who thought that virtual classroom and implementations are effective because they are **virtual settings** and **intriguing**, were at majority. The majority of the students stating these opinions were observed to be in higher class levels. That these students find virtual classroom implementations better and more efficient for these reasons can be stated with the following student opinions:

S65-4F. "It was an efficient implementation."

S15-3F. "...it is a flexible setting."

S49-3M. "It was a nice feeling to receive the lesson on a virtual setting."

S139-2F. "...they made education more intriguing by offering beauty."

The following student opinions indicate that these implementations promote **permanent learning**:

S33-3M. "The different setting promote permanent learning with also the intriguing setting."

S51-3F. "I find it very beneficial. It promote permanent effects in learning due to being a hyper setting."

S143-2F. "Because it is different from traditional learning it promote permanent learning information storing."

With respect to opinions, virtual classroom implementations can be said to be effective on permanent learning. This feature, which positively effects learning, can be said to be one of the positive sides of such implementations.

One other positive theme is that **virtual classroom and implementations are more advantageous than traditional classrooms.** Year three and four students, who carried out these implementations one-to-one, expressed this opinion more than the other students and these opinions are:

S34-3M. "Although it doesn't completely fulfill our expectations it was more entertaining and comprehensive than traditional methods."

S74-4F. "The implementations are more interactive than in the normal classroom setting."

S94-4F. "It is more comfortable-flexible than the traditional classrooms."

S95-4F. "I found it better than the traditional classroom setting..."

Student opinions indicated that the **practicality of virtual classroom systems** made these implementations more attractive. In addition to be able to do all classroom implementations through such systems, student opinions were observed to state that it facilitates and offers advantages for uploading homework's, participating in discussions, sharing files, accessing information from the

person desired at the desired time and place, lesson repetition and transferring information. These opinions can be listed as below:

S80-4F. "...Uploading homework's and participating in discussions is very beneficial."

S106-4M. "It was a good implementation. Almost all implementations carried out in a normal classroom were conducted."

S120-4M. "I find it beneficial for easy file sharing and easily accessing information from the desired place and desired person."

S36-3F. "...it is beneficial because we can later on watch what we prepared during the lesson."

S77-4M. "It is a facilitator..."

S144-2M. "It is practical and facilitates communication and information transfer."

One other opinion stated by the majority of the students was **effectiveness in learning-teaching-education.** Male students and year four students stated that it is a very effective implementation in education and learning. Based on this, it can be stated that using virtual classroom and implementations will be effective in learning, educating and teaching and will give positive outcomes. Student opinions that justify this result are:

S52-3F. "...Having multimedia materials in the virtual classroom was effective in my learning."

S60-3F. "...I believe it is more effective in education because it contains hyper setting materials."

S73-4F. "It is an effective educational tool."

S161-2M. "We effectively carried out the lesson."

S181-2F. "It comforts the student and increases their comprehension."

S50-3M. "It is a didactic program..."

While the majority of the students stated positive opinions on virtual classroom and implementations, there were also students who stated negative opinions. Gender and class level distributions of the students who stated negative opinions about virtual classroom and implementations are given on Table 3.

Table 3: Distribution of Negative Opinions for Virtual Classroom and Implementations According to the Class and Gender Variable

No	Negative Opinions	Gender		Class			Total (f)
		F (f)	M (f)	2 (f)	3 (f)	4 (f)	
1	Failing to be disciplined-serious	5	2	2	2	3	7
2	Not being effective-inefficient	5	5	4	4	2	10
3	Being inconvenient for applied courses	2	1	1	2	-	3
4	Not being social	1	-	-	-	1	1
5	Being boring	2	3	1	2	2	5
6	Technical and hardware problem	7	6	4	4	5	13
7	Being a comfortable-flexible setting	1	-	-	1	-	1
8	Requiring face-to-face education	3	3	5	1	-	6
9	Lack of communication	-	1	-	-	1	1

10	Having deficiencies	-	4	2	-	2	4
11	Attention deficit	1	1	1	-	1	2
	Total (f)	27	26	20	16	17	

It is evident on Table 3 that the students who gave negative opinions emphasized the themes **"failing to be disciplined-serious, not being effective-inefficient, being inconvenient for applied courses, not being social, being boring, technical and hardware problem, being a comfortable-flexible setting, requiring face-to-face education, lack of communication, having deficiencies, attention deficit"**. The majority of the students stated negative opinions on this implementation due to technical and hardware problems, being ineffective and failing to be disciplined and serious. Also, that the implementations are boring, they have deficiencies, they are inconvenient for applied courses and that face-to-face education is better are among the other common opinions. While female students stated negative opinions more than the male students, year three students stated less negative opinions. The reason why female students stated more negative opinions can be because they are not as comfortable as male students; the reason why year three students stated less negative opinions can be because they give weight to applied courses.

The majority of the students who stated negative opinions for the implementation because **fails to be disciplined and serious** are female and year four students. That the setting lack discipline can be said to be perceived as the implementation's disadvantage by the students. Opinions of some students who think this way are given below:

S68-4M. "I can't say much because it is not such a serious implementation."

S70-4F. "I believe it will be more beneficial when discipline is achieved."

S170-2M. "...there is less control and classroom management is bad."

Table 3 shows that the students don't find virtual classroom implementations as an **effective and efficient implementation**. Year three and year four students and female and male students stated equal number of negative opinions. These groups believe that this implementation is not efficient and effective because it is not used effectively, that there is not a sufficient level of understanding, they don't find it as efficient as the classroom setting and they cannot participate in implementation activities. Various student opinions giving reference to these thoughts are:

S72-4M. "It wasn't beneficial because we couldn't go beyond theory. We couldn't participate in implementation activities."

S124-2M. "Although it is not as effective as the classroom..."

S54-3F. "It is beneficial if the student has sufficient level of awareness, or else it becomes 'fake education' rather than a virtual classroom."

S183-2M. "The implementation is good but there is no one using it effectively."

S79-4F. "It wasn't very good because we couldn't participate much effectively."

The student coded S122-4F asserted that **sociability is less** in virtual classroom implementations and stated "*The social side is weak but it is good that it is both time and space independent"*. Another student (S27-3F) *"I think settings where students can be more flexible and comfortable are being created. This negatively affects education. An effective and significant learning doesn't take place."* and underlined a drawback based on the setting being **comfortable and flexible**. One other student opinion was about **lack of communication**. This student (S87-4M) stated that *"It is nice to attend the lesson in different settings but disconnections related to communication can occur."* Based on these reasons stated by the students, the implementation can be said to have less social features and communication and that various drawbacks occur due to it offering a flexible setting.

In the study, the majority of the students stated that the most common drawback they encountered was **technical and hardware problems**. Female students and year four students were observed to face more problems. Some of these students stated that they encountered technical problems and had troubles with sound, image and internet connection. Various student opinions supporting this opinion are:

S84-4M. "It wasn't very convenient. There are many technical problems."

S101-4M. "I believe it will be at a better level once the internet gains speed. It will be awesome once image freezing and sound interruptions are troubleshot."

S81-4F. "...it is a very troubling state for those who have internet connection problems."

S102-4M. "...it is not efficient due to slow internet and various technical problems it causes."

Virtual classroom implementations can be considered to be **inconvenient for applied courses** based on student opinions given below. This opinion is consistent with the positive opinion stating that the implementation is appropriate for theoretical-verbal courses. Examples for this opinion stated commonly by year three and female students are:

S3-3F. "It is appropriate for theoretical courses but it has many drawbacks for applied courses."

S26-3F. "It is a good implementation but not for applied courses."

In the study, male and year four students emphasized **being boring** and **having deficiencies** as the negative sides of the implementation. The following student opinions show that the students were bored during the implementation, that it wasn't intriguing and that it had several deficiencies:

S55-3F. "I found it beneficial. But I believe that the virtual classroom setting can become more intriguing after being improved."

S86-4M. "It tires you out when the time extends."

S105-4M. "Although there are several educational deficiencies, it is hopeful for the future."

S184-2M. "The implementation is good but has many deficiencies."

The students stated that they **wanted face-to-face education more** because these settings and implementations are different from the traditional classroom settings. While year two students wanted face-to-face education more than the students in other classes, male and female students wanted it at equal levels. It can be concluded that year two students think this way because they don't know the setting very well. We can list student opinions supporting this opinion as;

S36-3F. "...but I believe I don't understand the subjects as well as I did through the traditional method."

S159-2M. "It is overall good but it is not as effective as the real classroom setting."

S163-2M. "I believe face-to-face education is more effective."

S165-2M. "I didn't find it so beneficial. Because the teacher is a must in the classroom. Face-to-face education is important."

S166-2F. "It is a bit different setting. But the physical classroom setting is better. Everything is alive."

Some male and female students studying in year three and year four who stated negative opinions asserted that the setting led to **attention deficit**. The following statements indicate that they think this way because the setting is virtual:

S98-4F. "...but it is very distracting when people keep talking on the chatting window while the lesson is being taught in the virtual setting."

S156-2F. "It was generally good apart from being able to concentrate."

It was observed that the majority of the negative student opinions underline that it will be a better implementation when these drawbacks are extinguished. Student opinions indicate that virtual classroom and implementations have many advantages and they have significant contributions to education and learning.

4. Discussion, Conclusion and Implications

The majority of the students were observed to state positive opinions about virtual classroom and implementations and that they believed it is a beneficial and good implementation. There are many studies that are in line with this finding (Yılmaz, 2015; Akçay & Gökçearslan, 2016). The majority of the students who stated positive opinions in the study were female and year three students. The greater part of the students displayed positive attitudes towards these implementations because it is time and space independent, intriguing, economical, it is effective in education and learning, efficient, a practical system, comfortable, flexible and a different education setting. The students stated that the systems which conduct virtual courses offer easy handling (Sümer, 2016) and are economic (Karahisar, 1999). Virtual classroom are entertaining and the teacher has many advantages (Çiçek & Yazar, 2013). Students also stated that they can express themselves better and their self-confidence increased. Students, who can't express themselves in person due to individual differences, feel more comfortable while expressing themselves in the virtual setting and have the chance to delete their words because they write what they want to say in these settings (Özmen, 2011). Virtual classroom implementations offer many advantages for students who are not willing in the classroom due to shyness, language problems and social status (Arı, Pekel, & Yazar, 2011). Student opinions also underlined that it is more advantageous than traditional classrooms, it is and intriguing and virtual setting and it is more appropriate for theoretical-verbal courses. When compared with the traditional classroom education, it has many advantages: easy access, increase in communication and social skills, time, economical, motivation, re-usability, everything being digital, group commitment and mutual support (Posey, Burgess, Eason, & Jones, 2010). It was observed that the implementation should be used in other courses and that it is more efficient than the traditional classroom because the lessons in virtual classrooms can be watched again,

the documents can be accessed any time, the system can be used outside of school and they are more visual and instructional (Dikmenli & Ünaldı, 2013). In the study, that they allow for permanent learning and promote individual learning, active learning and participation were stated by the students as the positive sides of these implementations. Virtual learning societies have a significant role in conducting individual and cooperative learning activities in the classroom and enabling persistency in participating in the time and space independent learning process outside of the classroom (Yılmaz, 2016). Hiltz (1986) also emphasized that it is effective in active learning and communication. It was stated that it is an implementation where communication is enabled and equal opportunity in education is offered. Özmen (2011) emphasized that another purpose of the virtual classroom is to increase communication between students and enable them to learn the lesson better by helping each other. In addition, virtual classroom implementations were designed to promote equal opportunity in education (Dikmenli & Ünaldı, 2013).

However, some students stated negative opinions because this type of an implementation has technical and hardware problems, lacks discipline and effectiveness and is boring. In the study they conducted, Dikmen and Ünaldı (2013) stated that some of the students displayed negative attitudes due to technical problems related to internet connection speed, sound and image. Similarly, it has been proved by many studies that usually technical problems occur in virtual classrooms and these affect the individuals (Yılmaz, Karaman, Karakuş, & Göktaş, 2014; Kalelioğlu, Atan, & Çetin, 2016). One other finding is that year two and female students stated negative opinions. That the students who participated in the study wanted face-to-face education, they believed there was no appropriate system for applied courses and it had deficiencies can be listed as the negative sides of this implementation. While face-to-face interaction in classroom-based learning settings is mainly between teacher-student and student-student, interaction in web-based learning settings is online and individuals don't see each other in person (Jianhua & Akahori, 2001), thus this may cause these students to state negative opinions on virtual classroom and implementations. Among the other drawbacks determined in the study was the setting being comfortable and flexible, the students being anti-social, lack of communication and attention deficit. Kalelioğlu et al. (2016) underlined that the students face communication and attention problems in virtual classroom settings and that their first choice in instructional methods would be face-to-face education. Such a result supports the results of this study. Students who can't communicate with their friends and teachers will feel themselves alienated and isolated due to lack of communication and this will prevent them from attending online classrooms (Woodill, 2010). It was observed that students display negative attitudes towards such implementations for these reasons. Sümer (2016) conducted a study and underlined that the students stated issues caused by lack of student-student, student-teacher and student-setting interaction, failing to be time and space independent, lack of attendance to live courses and design problems.

5. Implications

Developments-changes in the internet and web applications has also been evident in educational implementations. Internet/web based learning settings are being created in education and students are always benefiting from these settings. Conventional implementations are being abandoned day-by-day. Computer and internet based education/learning is becoming more significant. Based on this, virtual learning settings and virtual classrooms are being created. Virtual classrooms should be spread in various levels of education because they enable giving lessons at any time and place and facilitate conducting and learning-teaching at any field. More fruitful results can be obtained by making it convenient to students from all class levels and all courses. Because virtual classrooms are web-based, preventions should be taken to minimize technical problems. Technical infrastructure should be improved and deficits that can occur in the system should be extinguished. Because it can be used at any desired time-space, an auto control system should be established to solve discipline problems that may occur due to an authority gap that can arise unlike in traditional classrooms. Various activities can be carried out in virtual classrooms to prevent lack of communication and anti-sociality. Negative outcomes that virtual classroom communication can cause can be prevented by carrying various communication channels to the real classroom setting. Various problems can occur because the face-to-face education in real classrooms are carried out through digital settings in virtual classroom implementations. In order to extinguish these, users should be informed and also connections should be made with real classrooms. This study, which was limited with the department of CEIT, can be conducted on different samples and study designs.

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Appendix

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