



THE USE OF AUDIENCE RESPONSE SYSTEM IN ENGLISH TEACHING: THE EXAMPLE OF MENTIMETERⁱ

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Abstract:

The use of the Audience Response System in English teaching increases students' interests and participations. Mentimeter is one of the listener response systems that allows us to prepare course evaluation activities. Mentimeter allows students to convey their opinions via phones, tablets, laptops or personal computers. In this study, it is aimed to get the opinions of 10th grade students about the use of Mentimeter in English class. As a result of the research, it is found that the course taught with Mentimeter has positive effects on the students. It has been concluded that it increases students' participations in the lesson, makes them enjoy the lesson, motivates them and helps them to focus. "Mentimeter" creates a competitive environment, allowing students to have a pleasant time and to correct their mistakes by receiving feedback.

Keywords: Audience Response System, Mentimeter, English learning, participation

Özet:

Dinleyici Yanıt Sisteminin İngilizce öğretiminde kullanımı öğrenci ilgi ve katılımını arttırmaktadır. Mentimeter derse ilişkin değerlendirme etkinlikleri hazırlamamıza olanak sağlayan dinleyici yanıt sistemlerinden birisidir. Mentimeter öğrencilerin telefon,

ⁱ İNGİLİZCE ÖĞRETİMİNDE DİNLEYİCİ YANIT SİSTEMİ KULLANIMI: MENTIMETER ÖRNEĞİ

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tablet, dizst bilgisayar veya kişisel bilgisayar aracılıęıyla grşlerini iletmesine olanak tanımaktadır. Bu alıřmada İngilizce dersinde Mentimeter kullanılmasına iliřkin 10. sınıf ğrencilerinin grşlerinin alınması amalanmıřtır. Arařtırmanın sonucunda "Mentimeter" ile iřlenen dersin ğrencilerin zerinde olumlu etkileri olduęu grlmřtir. ğrencilerin derse katılımını arttırdıęı, derstten keyif almalarını saęladıęı, motive ettięi, dikkatini toplamalarına yardımcı olduęu sonucuna ulařılmıřtır. Mentimeter rekabet ortamı oluřturarak ğrencilerin keyifli zaman geirmelerine, geri dnt alarak hatalarını dzeltmelerine olanak saęlamıřtır.

Anahtar Kelimeler: Dinleyici Yanıt Sistemi, Mentimeter, İngilizce ğrenme, katılım

1. Introduction

Education, which is expressed as "*the process of creating a desired change in an individual's knowledge, skills, attitudes and habits through his own life and in a planned manner*", includes education, training and learning processes. Learning is a process of mental change that takes place with the active participation of the student, putting knowledge and skills into practice (nal, 1999).

Active learning, on the other hand, means more than "*the student taking an active role in the learning process*" (Arslan, 2016). It describes the transition of students from being passive recipients of lesson-based information to actively participating in their own learning through a collaborative process between themselves and their teachers (Daniel & Tivener, 2016). In such a process, the role of the teacher is to guide students by creating a learning environment that facilitates learning and encourages their participation, rather than providing direct guidance and the flow of information (Rotgans & Schmidt, 2011). The teacher should encourage interaction in the classroom and increase student participation and performance. Students should be in search of new methods to provide desired change in their knowledge, skills and attitudes. Using contemporary technology to encourage interaction ensures student participation, encourages active learning, and improves learning outcomes (Green & Repetti, 2015).

The Audience Response System (ARS) is an example of using current technology in active learning. Audience Response System in the literature is expressed by various names such as Personal Response System, Student Response System, Classroom Communication System, Learner Response System and Clickers (Yıldırım & Kahraman, 2012; Premkumar & Coupal, 2008; Cardoso, 2011).

Audience Response System, which is an electronic system, provides instant feedback to the answers given by the students (Castello, 2010). It provides an active learning environment by involving students in the learning process (Buil, Catalan & Martınez, 2016). As Cardoso (2010) emphasizes, the Audience System is used to monitor and support student participation, increase participation, revitalize the learning environment at regular intervals, evaluate student performance, control student readiness, get students' ideas, increase interaction, provide feedback, improve learning and teaching environment and organize the lesson according to the interests and needs

of the students. At the same time, the Audience Response System encourages students to discuss the material without worrying that he or she will be scorned by others because of his anonymity (Bojinova & Oiagara, 2011). Students discuss the possible answers to the questions asked individually or in groups and choose the answer they think is correct, the distribution of the results is shown and a short discussion is made about the correct answer to the question, then a second answer is given (Bojinova & Oiagara, 2011). In this way, students can evaluate their levels and teachers can manage class discussions (Buil et al., 2016).

Advances in technology have enabled the transition to mobile technologies (Stowell, 2014, p.329). Today, the use of mobile phones, which are the tools of the millennium, by students for learning purposes is extremely meaningful. Physical response systems have disadvantages such as being financially expensive, campus-based, etc. besides its advantages. For this reason, virtual response systems are more accessible systems in the creation of a learning environment since today's students use the technology they know and are less costly in financial terms (Premadasa, Wijetunge & Bhatia, 2016). Mentimeter is a web-based response system that allows students to answer digitally prepared questions with the help of a digital tool (Mohin, Kunzwa & Patel, 2020). The only condition for using Mentimeter is internet access. Students enter a six-digit code to access the assigned pages and submit their answers (Wong & Yunus, 2020). This study was carried out to determine students' opinions about the use of Mentimeter, a web-based application within the Audience Response System, in English lessons. The study sought answers to the following questions:

- 1) What are the advantages of using Mentimeter in English class?
- 2) What are the disadvantages of using Mentimeter in English class?
- 3) What can be done to make the use of Mentimeter more efficient?

2. Method

Qualitative research method was used in this study. As Yldırım and ŐimŐek (2018) state that qualitative data collection methods such as observation, interview and document analysis are used in qualitative researches and in qualitative researches, qualitative process is followed to reveal perceptions and events in their natural environment in a realistic and holistic way. In this study, case study, which is one of the qualitative research methods, is adopted. Case study aims to reveal the results related to a specific situation (Yldırım & ŐimŐek, 2018). Case study examines events or phenomena that are subjects of the research with an in-depth analysis. (Grbz & Őahin, 2017). Since observations and interviews are used in this study to determine students' opinions and perceptions about Mentimeter, this study is a qualitative study.

This study was carried out with 10th grade students at Kılıçođlu Anatolian High School in Odunpazarı, EskiŐehir. After the introduction of Mentimeter application, the study was carried out in one class-hour. At the end of the study, open-ended interview questions were asked to the volunteer students.

2.1. Study Group

Table 1: Demographic information of the study group

Gender	Age	<i>f</i>
Female	15-16	22
Male	15-16	14

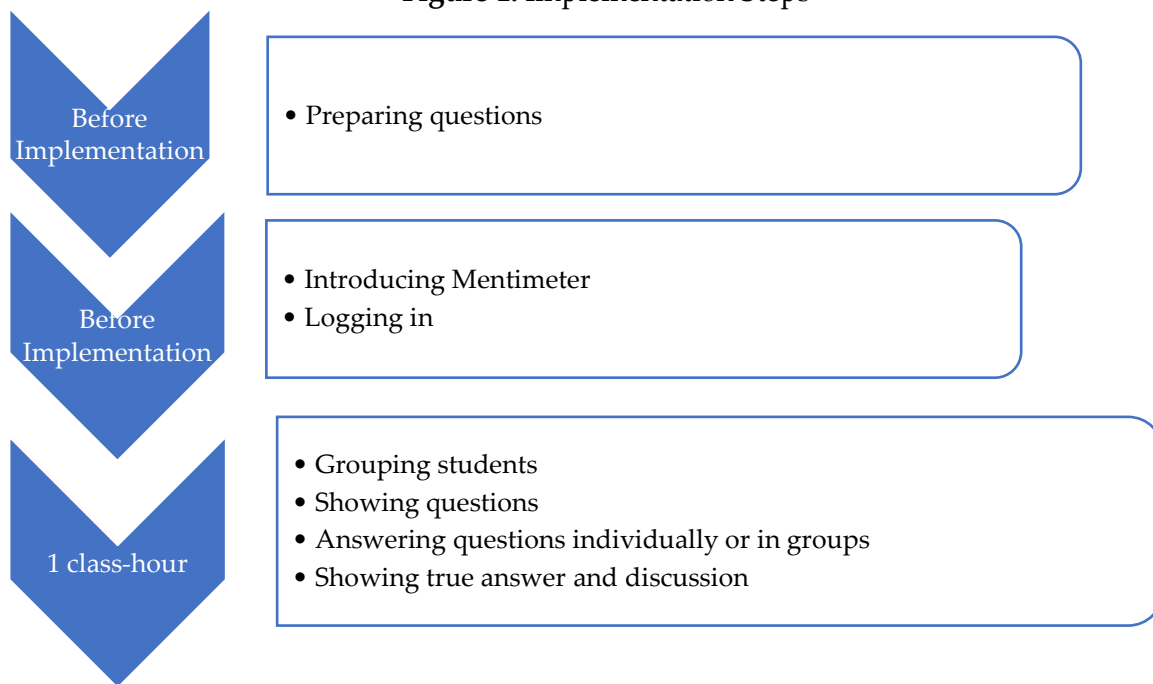
36 students participated in this study. 22 of the students were female and 14 of the students were male. There are 4 English teachers working at the Kılıçoğlu Anatolian High School. The socio-economic status of the region is at mid-range. The students are good at English.

2.2. Procedure

In this study, Mentimeter was used as a response system. Mentimeter is a web-based response system and in web-based response systems, students use their mobile devices and a six-digit code to log in (Little, 2016). The application can be accessed from <https://www.mentimeter.com/> website. It can be used via mobile devices, too. Before implementation, the teacher registered with an e-mail address and password. Then, she uploaded the questions. Questions can be asked in short answer question form, true-false and multiple-choice forms. She uploaded multiple-choice questions and edited the questions.

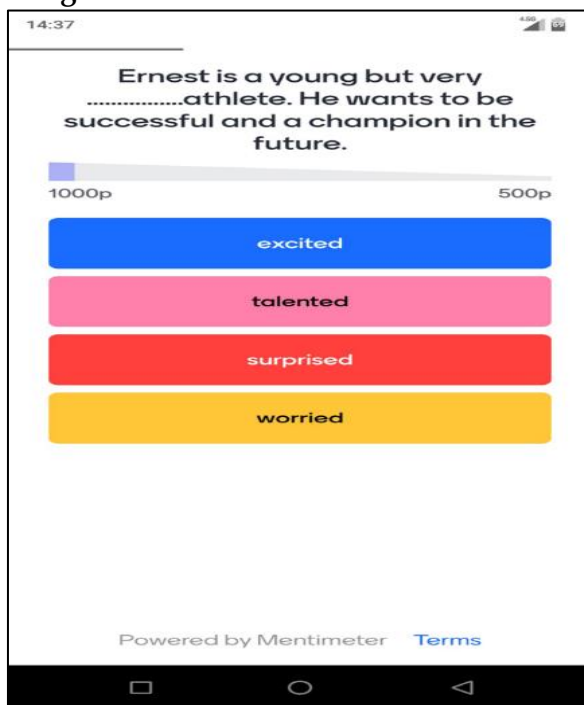
Before using Mentimeter in the class, Mentimeter application was introduced to the students. As Park and Choi (2014) express classroom setting is an important element in students' learning. So, instead of a normal classroom layout, group arrangement which provides face to face interaction and creates an environment for cooperative learning (Demirci & Yavaşlar, 2018). Therefore, considering pandemic conditions, students participated in Mentimeter activities as a group and some of them participated in individually since they did not want to participate in groups. Although some of them participated individually, the classroom layout ensured face to face interaction and created an active learning environment. Students without Internet connection were included in groups. Then, a sample implementation was done to make students familiar with the application. The questions were in accordance with 10th grade English class outcomes. The students logged in with the password given by the teacher. During the study, the students saw the teacher's screen on the smartboard. They also saw their performances and they compared their performances. With the help of performance chart, the teacher also got the performance information of the students. The answers were hidden during the implementation and at the end of the implementation they were shown. The implementation steps that were arranged by Mohin et al. (2020) were taken into consideration and those steps arranged for this study. The steps are shown in Figure 1.

Figure 1: Implementation Steps



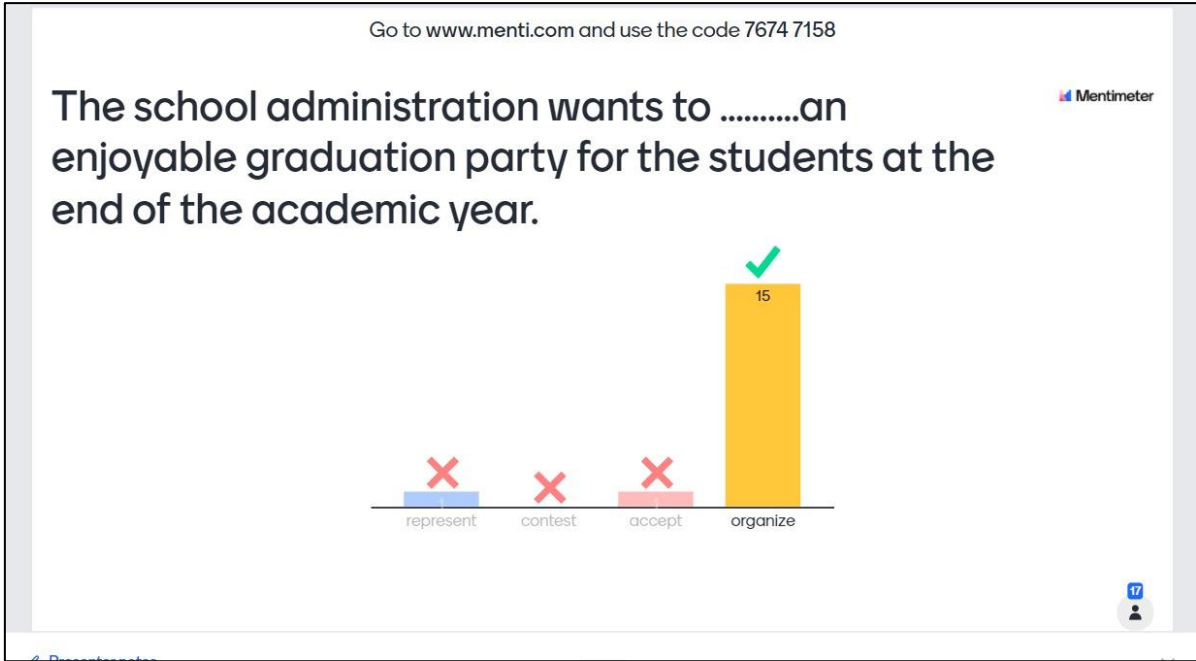
Screenshots of the application are as follows:

Figure 2: Screenshot of a student's screen



Source: The teacher took the picture herself

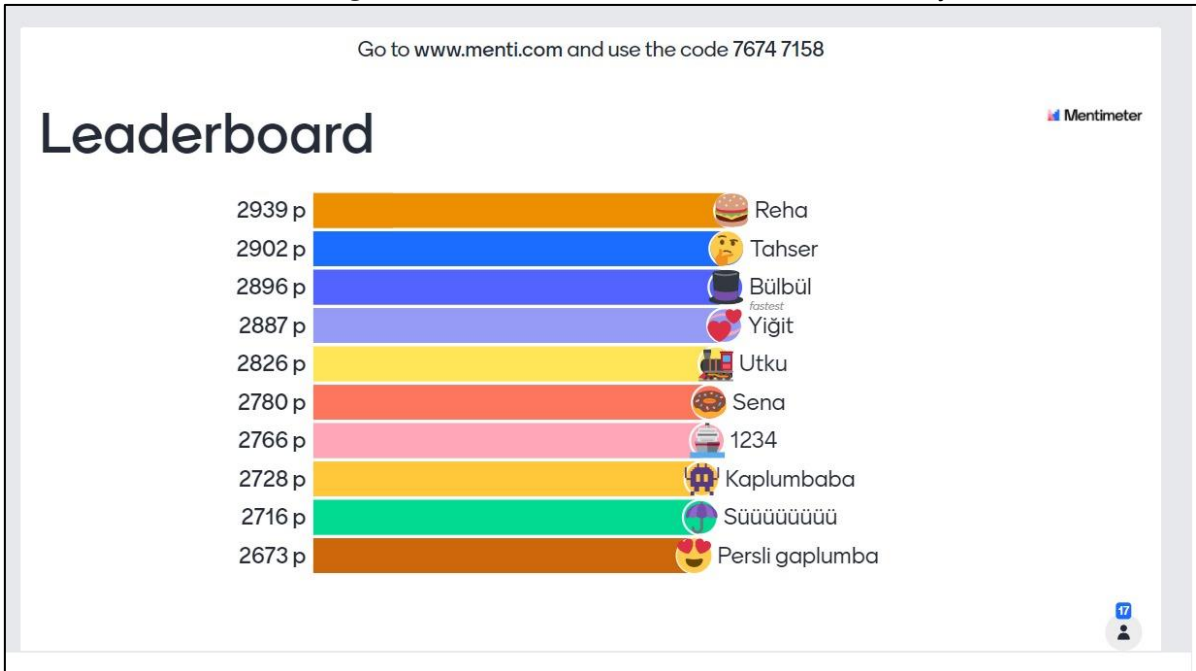
Figure 3: Results Screenshot



Source: The teacher took the picture herself

After finishing the activities, feedbacks provided by the system were shared with the students. Therefore, it enabled self-assessment. The statistical data at the end of the activity were shown in Figure 4.

Figure 4: Statistical data at the end of the activity



Source: The teacher took the picture herself

3. The Results of the Study

The results of semi-structured interviews are included in this section. The results of the interviews are given in Table 2.

Table 2: The frequencies of the themes and the codes

Themes	Numbers of the codes	Numbers of the opinions in codes
The Advantages of Mentimeter	10	65
The Disadvantages of Mentimeter	11	27
Things to do to use Mentimeter more efficiently	10	23
Total	31	115

In the study, three themes were determined based on students' opinions. There are 31 codes, and 115 opinions in these codes.

3.1. The Advantages of Mentimeter in English Class

When the students were asked about the advantages of Mentimeter in English class, most of the students stated that the class was fun, they were motivated and the competitive environment helped them focus their attention. The codes for this theme is given in Table 3.

Table 3: Students' opinions about the advantages of Mentimeter in English class

Students' opinions	<i>f</i>
Fun and enjoyable	18
Increase participation	10
Competitive environment	8
Focus on class	6
Motivation	6
Effective learning	5
Facilitating learning	4
Arousing curiosity	4
Interaction	2
Getting feed-back	2

Some of the student opinions are as follows:

"The system is very enjoyable. The competitive environment and the adrenaline feeling of winning push children to learn. It pushes the children who do not normally attend class to learn." (S1)

"It facilitated our learning. People became more interested because of the technological environment" (S6)

"It was a fun and an informative activity after intensive classes" (S15)

"It makes learning fun. A fun activity for whole class" (S12)

"It was fun. It ensured students learn fast" (S13)

"It created a fun environment in class. It aroused ambition and enthusiasm because of its competitive atmosphere. (S17)

"Mentimeter is an excellent application for students to make them socialize and spend time together. Students who enter the application with their own usernames have fun and learn. To me, I both enjoyed, and I realized that I learned. Honestly, if I had the opportunity, I would love to play this game with my friends during breaks." (S20)

"It helped us learn by having fun. We remembered the questions in the activities." (S22)

"We learned by having fun. A very good application." (S24)

"It makes English easy and you race against the time." (S28)

"It helped me learn. It helped me remember. It helped me interact." (S31)

"The lesson is fun. There is a competition going on. We are happy when we do it right. The more we do it right, the happier we are, and we want to do it even more. It made us and teacher effective in the class. It brings to light the forgotten information and it reinforces the new information." (S32)

Considering the opinions about the English class taught by using Mentimeter, the students stated that they participated in class even more, and it aroused curiosity. They also said that they corrected their mistakes with the feedbacks they received, and it increased their motivation. Some of the students' opinions for these themes are as follows:

"Using Mentimeter minimizes distraction, which is a general problem of the students, and thus it increases the interest, participation and lesson in the class. In addition, when students receive feedback, their self-confidence and love of learning increases and thus their motivation increases, too." (S2)

"I think, it is the most fun way to solve questions. It is an application that increases both participation and motivation. We can learn the correct answers immediately. Being in a small competition with our class friends helps us answer the questions eagerly. It also enables faster and easier learning." (S7)

"It helped our quiet friends in the classroom attend. Competitive environment, curiosity, difference." (S9)

"It creates a competitive environment among the students. Those who do not want to attend in class want to attend, even a little. It was interesting. Comparing to the ordinary classes, it was colorful and fun. It was a different activity. We would like to do more such activities. It aroused our interests." (S16)

"It is a very good application in terms of reinforcing and repeating the concepts taught in class. It increases interest and attention. It makes English lesson fun. The graphics and design used in the application encourages us to participate in class. The passion to be in the leading rank in competition standings calls us to the game." (S30)

"I and my friends had competitive times. We had fun together. Even those who did not join wanted to join when they saw that we were having fun. It helped us to improve our English. Our sympathy towards English increased." (S34)

3.2. The Disadvantages of Mentimeter in English Class

In this study, when students were asked about the disadvantages of using Mentimeter in English class, most of the students said that there were no disadvantages in using Mentimeter. Although most of the students told so, there were some students saying that the application took time and time was not enough. They also stated that they had internet connection problems and they thought that the application distracted their attention. Furthermore, a few students urged that they had technical problems, the design was boring, and they could not choose a profile photo. They also added that the limited number of questions in application was another disadvantage of using Mentimeter. The codes for the theme are given in Table 4.

Table 4: Students' opinions about the disadvantages of Mentimeter in English class

Students' opinions	f
No disadvantages	11
Take time	3
Internet connection problems	3
Inadequate time	3
Distract attention	2
Technical problems	1
Not choosing a profile photo	1
Design problems	1
Limited number of questions	1
Ordinary interface	1

Some of the students' opinions are as follows:

"According to me, there were no disadvantages." (S12)

"There are no disadvantages, it is a very good application." (S32)

"I do not think that it has disadvantages except that we are not familiar it and it takes time." (S3)

"It has short response time and it causes stress. Most of the students had connection problems because it needed Internet connection. We had tough times in transition from one question to another." (S4)

"Time is very fast, and seconds change a lot. I mean, it would be better if time was not so effective." (S15)

"The problem of the system is that it makes students wait for a long time and the children get distracted." (S1)

"I think, the interface is very simple, and it should be developed." (S24)

"Logging in requires a lot of processing. Technical problems." (S36)

3.3. Things To Do To Use Mentimeter More Efficiently

Most of the students said that more questions should be included in the application. In addition, they stated that the upper version of Mentimeter should not be paid, and the application should be easy to use and the interface of it needs to be funnier. The codes for this theme are given in Table 5.

Table 5: Opinions about the things to do to use Mentimeter more efficiently

Students' opinions	<i>f</i>
More questions should be asked	5
Easy to use	3
Should be developed	3
No fee for upper version	3
Should remain as it is	2
An attractive interface	2
Shortcomings of application should be corrected	2
Characters in profile photos should be chosen	1
Should be played with friends	1
Questions should be read aloud	1

Some of the students' opinions are as follows:

"The vulnerability of the system must be resolved. For example, it makes us wait while trying to log out." (S1)

"Quizzes prepared topic by topic can speed up the installation phase of the system. If we make use of the upper version which needs fee, a more comprehensive study can be done. For example, 10 questions can be asked in every test instead of 5 questions." (S2)

"The transitions between the questions need to be made easier." (S5)

"I think if the questions are read aloud, our accent can also improve." (S6)

"No one had systematic problems while using Mentimeter. Therefore, I do not know anything to make it better." (S7)

"The application can be developed more. An easier access can be provided while logging in." (S8)

"By minimizing the time between questions, it is possible to prevent distraction. While using it, it throws us out of the system." (S9)

"If the interface of the game became clearer and more interesting, the game experience would be more qualified and efficient." (S15)

"The number of questions should be increased and there should be a funnier background." (S22)

"We should be able to choose character photos ourselves. The application can be easier to use, and it can be more interesting." (S16)

"After solving 5 questions, we need to create another virtual room and it spoils unity." (S21)

"Mentimeter application can be improved if a mode that we I play with my friend. Besides this, it is already good." (S22)

4. Results and Discussions

The purpose of this study is to determine the students' opinions on the advantages and disadvantages of using Mentimeter in English class and to determine what needs to be done to increase the effectiveness of the application. For this purpose, students' opinions were collected and analyzed by using a qualitative method. As a result of the analysis, it is found that using Mentimeter makes English classes fun and enjoyable, it increases students' participations and it creates a competitive environment in class. It is also found that Mentimeter enables the students to focus on class and motivate them, so it facilitates learning, and creates excitement about learning.

Mentimeter creates an interaction environment that students can use to actively participate in classroom activities (Funnell, 2017). The results of the research reveal that the use of Mentimeter is effective in students' participations in class. Although there were some problems with Internet connection, most of the students actively participated in the Mentimeter activities.

The use of Mentimeter provides a pleasant environment in the classroom, and the students state that they have a fun time. Students' enjoyment of learning can make them interested in what they learn and learn better. In most of the studies on the use of such systems in language teaching, positive feedbacks are obtained from the students (Keogh & Wang, 2010, Hoppenfeld, 2012).

People are afraid of losing their respects in the society, damaging their reputations and being humiliated. They restrict their behaviors in order not to lose their reputations (Huang, Davison & Gu, 2008). Students, too, often feel nervous when answering questions in class, for fear of making mistakes and being humiliated. Mentimeter allows students to use questions anonymously. For this reason, it allows students who do not attend the class in the classroom to share their ideas comfortably and allows students to participate in activities (Funnell, 2017). As Funnell (2017) states, the results of this research show that the students who are not eager to participate in class activities want to participate in Mentimeter activities. They state that they have fun while answering questions in a competitive environment.

As a result of the research, it has been revealed that the use of Mentimeter helps students focus their attention and facilitates learning. There are studies with similar findings (Kay, R. H. and LeSage, A. 2009). At the same time, the students learn about their mistakes by getting immediate feedback on their answers. They can learn about their own performance and make necessary corrections. It is expected that immediate feedback will have a positive effect on student performance (Yıldırım & Kahraman, 2012).

It is seen that the number of students stating that the use of Mentimeter does not have any disadvantages is quite high. In addition to this, the internet problems, technical problems and some negativities arising from the application are stated by the students, albeit a little. However, considering that there are students who stated that the application should remain the same, it is seen that the positive aspects of the application outweigh.

When the students are asked how to improve Mentimeter, they state that the system should allow to ask more questions in one section. For this reason, the upper version of the application should not be paid. They also say that it should be simple to use, and its interface should be catchy.

5. Recommendations

Mentimeter is a system that enables students to actively participate in class. In this research, it is observed that the students participate in Mentimeter activities and they have fun while they are engaged in these activities. It is stated that the Mentimeter application increases the interaction between students in the English lesson, motivates

students, facilitates learning, attracts students' attention and provides feedback on mistakes made by students. For this reason, Mentimeter can be used not only in English class but also in other classes to make students active learners and to make the class fun. In this research, we used Mentimeter as a response system so following this study, in-depth studies based on different response system can be conducted. Considering the Internet connection problems, it is ensured that students can access Mentimeter without Internet connection. This study has been conducted as a qualitative research, so quantitative research techniques can be applied on this subject.

Conflict of Interest Statement

The authors declare that there is no conflict of interest.

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