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A Study on Kahoot and Socrative in Line with Preservice Teachers' Views*

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Abstract

The aim of this study is to determine preservice teachers' views of using Kahoot and Socrative. Qualitative research method was applied in the collection, analysis and discussion of the data of the study which is a descriptive one. The study was carried out with the participation of 36 preservice teachers studying in 6 different departments namely special education, elementary mathematics teaching, science teaching, music teaching, art teaching and Turkish Language teaching. Interview form was used as the data collection tool. Findings of the study reveal that following the application process preservice teachers' views were mostly positive. Preservice teachers stated that their attention and motivation increased, applications enhanced permanence, made classes more fun and encouraged active participation. They also mentioned that they thought of using these applications in their classes in the future. On the other hand, some preservice teachers stated that competitive aspect of Kahoot affected them negatively during the practice of the application. Some other preservice teachers pointed out that they found the introduction part of the application more complicated and boring. The most important drawback stated is that internet facilities are not equally convenient for both applications.

Keywords: kahoot, socrative, preservice teacher, educational technology, formative assessment

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Introduction

New generation is constituted of individuals who are born into and grow up with modern technology, who are familiar with and use it. There have been dramatic changes in tools and devices with the development of technology. Developed technologies have changed expectations from teachers and learning environments; student-centred approach replaced teacher-centred approach. One of the most effective ways for teachers to communicate with new generation is integrating developed technologies into the classroom. Studies reveal that using appropriate technologies in the learning environment will increase student success and in-class participation. This makes learning environments enriched with technology inevitable.

International Standards for Educational Technologies were set for teachers by International Society for Technology Education (ISTE), which offered a very important frame about the characteristics of teachers in the 21st century. These standards highlight the necessity of making numerous and various evaluations which identify levels and are formative by using technology in teaching activities, particularly in testing and evaluation process (ISTE, 2015).

Testing and evaluation, which is an important, dynamic component of education, is an inseparable part of teaching process (Heritage, 2007) and is used for enhancing and developing students' learning levels, and also for taking decisions about students by identifying their levels of gaining outcomes. While evaluation is result-oriented in traditional methods, in structuralist learning approach it is involved in each important stage throughout teaching process as a part of it (Gelbal and Kalecioğlu, 2007). Thus, for an effective teaching activity one should make use of evaluation types aimed at diagnostic-placement, training-formative and summative depending on the purpose throughout the process (Semerci, 2007).

Diagnostic and placement assessment is the type of assessment which determines if students have the required, prerequisite behaviours in order to be successful in a teaching program (Tekin, 2010). Formative assessment is the type of assessment which aims to identify deficiencies in learning, applied in the learning-teaching process and which does not aim to grade students' performance (Keeley, Eberle and Farrin, 2005). The assessment type which is applied at the end of the course and which aims to identify students' levels of learning is called summative assessment. This assessment type reveals to what extent students have advanced in line with goals (Özçelik, 2010). Summative assessment is directive both in making decisions about students' success and in reaching a result about the effectiveness of teaching (Şahin and Karaman, 2013).

Today it is possible to create productive and functional learning environment by using information and communication technologies with a structuralist approach rather than traditional ones (Baki, 2008). There are several online assessment tools which are up-to-date, applicable and practical in order for teachers to use. These online testing and assessment tools have appeared as software

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which provide data analysis instantly and in details, save time by shortening time for testing and assessment, and facilitate teachers' work in many ways (Zengin, Bars and Şimşek, 2017). While these technologies are used as formative assessment tools for diagnosing students' lacks, providing feedback and correction, they can increase students' participation and motivation in the lessons (Johns, 2015). Moreover, they can help to create a structuralist classroom atmosphere.

Web-based student response systems (OYS) that can be used with mobile devices can be given as examples for these technologies (Richardson, Dunn, McDonald and Oprescu, 2015). Kahoot and Socrative, which are free, game-based applications and contribute to lessons by bringing these technologies into the classroom, can be used for formative assessment. Kahoot and Socrative, which enable teachers to prepare and share multiple-choice questions, to use previously prepared quizzes or apply them by editing, grade students' correct answers which they give by using a mobile device or computer without the need for opening an account, and the grading is done according to the allotted time for answering the questions (Siegle, 2015). Under the guidance of the teacher, students play the game as competitors. Kahoot and Socrative, which enhance participation and motivation in lessons, create visual data source in details for the teachers to carry out formative assessment and provide detailed report right away at the end of the game (Wang, 2015). In order for Kahoot and Socrative to be applied in the classroom, students need to use smart phones, tablet computers or laptops that have internet connection. It is thought that using these applications in the classroom to enrich formative assessment process is important in terms of providing teachers and students with alternative environment. Preservice teachers have a key role in taking the positive aspects of these applications to the learning environment (Baylor and Ritchie, 2002). Particularly preservice teachers' views of new technological applications are thought to affect directly integrating classrooms/schools with these technologies. Therefore, studies reveal that how preservice teachers perceive and evaluate new information and communication technologies is one of the important criteria to be considered in integrating new applications with classrooms (Ersoy, 2005; Freeman, 2015; Gürışık and Demirkan, 2019; McCargo, 2017). In the light of these evaluations it became necessary to examine preservice teachers' views of using Kahoot and Socrative applications.

The aim of the study is to identify preservice teachers' views of using Kahoot and Socrative in classes. In line with this aim, the study attempts to identify preservice teachers' views regarding;

- Kahoot and Socrative applications,
- which application they prefer and why
- the possibility of using these applications in their classes in the future

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Methodology

Descriptive model was used in this study since the aim is to reveal preservice teachers' views of Kahoot and Socrative applications. Qualitative research method was used in the collection, analysis and discussion of the data.

Research Design

Phenomenological design was used in this study, which was conducted through qualitative research. Phenomenological design is usually preferred for studies aiming to analyse phenomena that are not unfamiliar but cannot be understood clearly (Yıldırım and Şimşek, 2008). The aim of using phenomenological design in the study was to reveal preservice teachers' experiences, perceptions and tendencies.

Study Group

The study was carried out with freshmen students from 6 different departments namely special education, elementary mathematics teaching, science teaching, music teaching, art teaching and Turkish Language teaching, who were taught Educational Psychology by the researchers of this study. Study group was constituted of 6 preservice teachers (3 female, 3 male) from each department; these participants had different success levels and they all volunteered to participate in the study.

Data Collection Instruments

Data of the study were collected via semi-structured interview form that includes 8 questions. Determining interview questions and conducting validity and reliability process went through a number of stages. 5 experts in the fields of curriculum development and educational technologies were consulted when determining interview questions. Experts were asked to determine questions that were most appropriate for sub-goals of the study or to write down their recommendations in accordance with interview forms developed alternatively.

The most appropriate questions were selected following the evaluations. Then 4 preservice teachers were interviewed as the pilot study. After that, pre-test data analyses of the interview forms were presented to the interviewees and the interviewees were asked to check how correctly the researchers perceived the interviewees because participants' checking is an important criterion in providing reliability. Participants' checking enables testing data and discussion directly through participants (Guba, 1981). In order to maintain honesty of the study, to determine the design and to develop hypothesis, another researcher was consulted for her views of pre-analysis considering that the feedback obtained from a colleague who is not related with the study will bring different perspectives to the study (Guba, 1981).

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According to Miles and Huberman (1994), on the coding conducted separately by two researchers when using the same set of data, reliability rate between the coders can be calculated by dividing the number of codes which are agreed on by total number of codes that are agreed and disagreed on, and this rate has to be no less than 70%. In this study, reliability between the coders as researchers was calculated and found 81,5%. Definitions were made clearer by agreeing on what the coding meant, which data belonged to which code, and by eliminating disagreements (Miles and Huberman, 1994). Interview form took its final form with the studies carried out in line with the feedback obtained through pilot interviews.

Data Collection Process

The study was carried out by researchers in Educational Psychology class through 8 weeks. Applications were conducted in the last twenty minutes of each class; Kahoot was applied in the first four weeks of the applications and Socrative was applied in the other four weeks. The aim of preferring target group interview is to reach broader, deeper and more detailed information through various points of views developed by one student and improved by another (Çokluk, Yılmaz and Oğuz, 2011). Considering different views that in target group interviews the group size has to be minimum 6 people (MacIntosh,1981; Kitzinger, 1995; Beaty, Gibbs and Morgan, 1997), interviews were carried out with 6 preservice teachers from each department and each interview lasted about 80 minutes. The data were recorded on voice recorder and then transcripted.

Data Analysis

The data were analysed in line with the frame of themes regarding preservice teachers views of pros and cons of using Kahoot and Socrative, their recommendations about using Kahoot and Socrative, which one they prefer and why, and whether they will use them when they become teachers in the future. The data were analysed and coded in sentences and paragraphs in accordance with the aim of the study. After coding, the data were classified, described and discussed under determined categories. These themes were discussed in “cognitive dimension”, “emotional dimension” and “technical dimension” categories, they were defined through content analysis method and discussed by revealing concepts and relations (Yıldırım and Şimşek, 2008).

Data analysis in phenomenological research aims to reveal experiences and meanings. The content analysis conducted accordingly is an attempt to conceptualize the data and reveal the themes which can define the phenomenon. Results are presented in a descriptive way and direct quotations are frequently used. Besides, the findings obtained in line with the themes and patterns are explained and discussed (Yıldırım and Şimşek, 2008).

Direct quotations from the interview data are given in order to reflect the views effectively and support them. Direct quotations were carefully selected so that they represented the relevant finding or

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theme and were attractive. Preservice teachers' views, which are the source of data, were presented in abbreviations such as ÖA1, ÖA2,……,A36.

Findings

Preservice teachers were asked respectively their views and suggestions about Kahoot and Socrative applications, why they preferred the related application or applications, and if they would use such applications when they become teachers. The collected data were presented in the order of the questions that were asked to preservice teachers.

Preservice teachers were first asked to evaluate Kahoot application and to state their views. The data gathered from preservice teachers were grouped as negative as positive views, and preservice teachers' positive views are presented in Table 1.

Table 1. Preservice Teachers Positive Views about Kahoot

Themes	Views	N
Teaching Dimension	Increasing attention to the class	32
	Increasing motivation	27
	Increasing permanence of information	23
	Enhancing active participation in classes	23
	Enhancing in-class interaction	16
	Preparing for the exams	15
	Contributing to learning by enabling discussion about questions	9
	Detecting correct-incorrect answers and providing feedback	8
	Maintaining discipline in classes	7
Emotional Dimension	Making lessons fun	25
	Making people excited	16
	Giving the feeling of competition	8
	Making people happy when they get high scores	6
Technical Dimension	Using visuals	33
	Showing which questions were answered incorrectly and how many incorrect answers one gave	27
	Options being in different colours	25
	Using music in the background	25
	Showing names or nicknames	16
	Being able to set the time according to questions	16
	Positive time limitation (being fast)	8
	Showing the results on the screen (the winner, the runner-up, the third…)	8
	Showing the questions to everybody simultaneously	6

As seen in Table 1, Kahoot increases preservice teachers' attention and motivation in teaching dimension, maintains permanence of information, enhances in-class interaction, prepares for the exams, enables discussion about questions, helps students to see their correct and incorrect answers and to be aware of their lacks, and maintains discipline in classes. Preservice teachers stated the positive contributions of Kahoot application to lessons as such:

"When using Kahoot application I learned the subjects that I had not understood or that I thought I had not understood" (ÖA12).

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"After I answered some of the questions incorrectly, I discussed them with my friends out of the class. We checked our class notes and resource books. We sometimes checked the internet and did research about those subjects" (ÖA32).

"Kahoot increased my interest towards the lesson" (ÖA7).

"The moment I start thinking that I am getting bored, an interesting application starts" (ÖA25).

Preservice teachers who stated that they found Kahoot exciting and fun gave responses regarding positive feelings they had when using Kahoot as such:

"This is quite what I call learning with fun" (ÖA9).

"Kahoot is both really exciting and fun" (ÖA7)

"Competing makes the lessons interesting" (ÖA4).

Using visuals, giving feedback to enable students to see their correct and incorrect answers, having music in the background, having colourful options and using nicknames in Kahoot application are regarded as notable technical dimensions for preservice teachers.

Preservice teachers' positive views regarding Socrative application are given in Table 2:

Table 2. Preservice Teachers' Positive Views regarding Socrative Application

Themes	Views	N
Teaching Dimension	Offering variety of questions	27
	Informative	22
	Increasing permanence of information	22
	Enabling individual development	12
	Enabling to see lacks in knowledge	12
	Seeing correct and incorrect answers immediately	5
Emotional Dimension	Quiet	7
	Comfortable	6
Technical Dimension	Getting questions and answers in mobile phones	18
	No limitation of time	12
	Competing against oneself	8
	Showing exam results in percentages	7
	Not showing top 3 successful students	6
	No music used	5

Table 2 shows that offering variety of questions in teaching dimension of Socrative application is regarded by preservice teachers as a positive aspect. About this aspect of Socrative, ÖA3 stated "I like having different types of questions; having multiple-choice, true-false and open-ended questions is better than having only one question type". Preservice teachers even mentioned that thanks to the variety of questions their learning became more effective and permanent, and that they were able to notice their lacks better. One of the preservice teachers stated:

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"Having open-ended questions made us follow the classes more seriously" (ÖA1).

Among the positive views regarding Socrative are that it offers a comfortable and quiet atmosphere, it enables individual progress. About this feature of Socrative, ÖA8 stated: "Being in a quiet atmosphere when answering the questions increased my concentration".

Among the positive technical features of Socrative application pointed out by preservice teachers are that questions and answers can be followed on mobile phones, there is no time limitation, and that the application is designed in such a way that individuals can compete against themselves.

Preservice teachers' negative views regarding Kahoot and Socrative applications are presented respectively. First, preservice teachers' negative views of Kahoot are shown in Table 3:

Table 3. Preservice Teachers' Negative Views of Kahoot

Themes	Views	N
Teaching Dimension	Unable to focus on learning because of trying to move fast	10
	Getting distracted due to talks and discussions in class	9
	Getting distracted by music	8
	Time limitation increases mistakes	5
Emotional Dimension	Increasing competitiveness	9
	Causing ambition	3
Technical Dimension	Having problems in internet connection	27
	Having difficulty in reading from projection	12
	Questions and options being seen only through projection	12
	Having internet connection at different speed levels affects the level of success	7

As seen from Table 3, in teaching dimension of Kahoot application preservice teachers had to move fast because of time limitation, so they were not able to concentrate on learning. Besides, it can be seen that preservice teachers got distracted due to talks when using the application.

ÖA7, who thought that in emotional dimension Kahoot increased competitiveness, and it had negative effects, claimed that there was a negative atmosphere as such: "In my opinion we became too ambitious and hurt each other".

Regarding technical dimension of Kahoot, preservice teachers stated that they had internet connection problems the most. According to some preservice teachers, it was a negative outcome that this problem influenced success levels. About this problem ÖA6 explained:

"internet is a serious problem; internet speed, disconnection, not being available to everyone… it is unfair that those who have strong internet connection and answer the questions quickly get higher scores, it would be better if the school had internet connection and everybody used it.

Preservice teachers stated that the difference between their internet quota and speed affected the application negatively. Besides, they explained that although the competitive aspect of Kahoot has positive outcomes, it may have negative effects, too. Preservice teachers' negative views of Socrative are given in Table 4.

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Table 4. Preservice teachers' Negative Views of Socrative

Themes	Views	N
Teaching Dimension	Waiting for those who proceed slowly	20
Emotional Dimension	Boring	16
Technical Dimension	Entering the website is complicated	18
	Connecting to the website is troublesome	17
	It's not clear who is moving fast, who is moving slowly	16
	No limitation of time	14
	Questions are not projected	11
	All results are not projected in tables	9
	No music	8
	Seeing all the answers projected in tables causes to forget the questions	7
	Moving on by showing the answer right away makes the other student see the answers	3

Table 4 reveals that in the teaching dimension of Socrative application, some preservice teachers regarded it as a negative outcome to wait for their friends because of individual differences in speed. They also emphasized this problem made them bored. Regarding this problem, ÖA12 stated:

"… it is very boring to wait until the last person finishes".

Preservice teachers who found Socrative boring, simple and uninteresting in emotional dimension also maintained in technical dimension that it was difficult and complicated to enter the website: *"… in fact the application is a bit complicated for me…"* (ÖA22).

Moreover, some preservice teachers found it negative that there is no limitation in time and competition, that the winners are not projected, but that everybody's correct and incorrect answers can be seen as they are projected. ÖA19 explained this negative aspect as such: *"When we answer the questions our correct answers are projected and our friends may cheat; they may move on by giving correct answers even without reading the questions"*. It is seen that in Socrative application, projecting the correct answers immediately and everybody seeing them may lead to negative outcomes such as cheating and moving on without reading the questions.

Preservice teachers were asked their suggestions regarding Kahoot and Socrative. Suggestions regarding Kahoot are shown in Table 5.

Table 5. Preservice Teachers' Suggestions regarding Kahoot

Themes	Suggestions	N
Teaching Dimension	There may be "True-False" and "Fill in the blanks" questions	17
Technical Dimension	Questions and options may appear on mobile phones	14
	Variety of music can be increased	7

As seen in Table 5, in the teaching dimension of Kahoot preservice teachers suggest that the types of questions be increased. In the technical dimension of the application, on the other hand, they suggest that questions and options be seen on mobile phones, and the music be varied.

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Suggestions regarding Socrative are given in Table 6.

Table 6. Preservice teachers' views about Socrative application are presented in Table 6.

Themes	Suggestions	N
Teaching Dimension	Time limitation can be applied	12
Emotional Dimension	It can be more fun	12
Technical Dimension	Entering the website can be made easier	14
	Music and colours can be added	12
	Time limitation for optional use can be added	7
	Questions can be projected	6

In the teaching dimension of Socrative application, preservice teachers suggested that the application would become much more fun if time limitation were applied. In the technical dimension of Socrative are suggestions such as making the entrance to the website easier and using music and colours. About this issue ÖA4 suggested: "… it is good that we proceed at individual speed, but it would be better if we were given limited time such as 10-12 minutes for 10 questions and moving on to the next question when the allotted time is up…".

The reasons for Preservice Teachers' Preferences of Kahoot or Socrative are given in Table 7.

Table 7. The Reasons for Preservice Teachers' Preferences of Kahoot or Socrative

Applications	Views	N
Kahoot	Fun	25
	Competitive like a game	20
	Overall participation of the class	17
	Having nice visuals	17
	Music makes it more exciting	15
	More convenient	14
	More in-class interaction	13
Socrative	Rich variety of questions	20
	No limitation of time	19
	More informative	17
	No stress	11
	Questions appear on mobile phones	10
	Moving on through concentration	10

As Table 7 reveals, preservice teachers prefer Kahoot because it offers fun competition like a game, enables participation of the whole class, uses visuals and music, allows dynamism and interaction in the classroom, and it is convenient.

Preservice teachers stated that they preferred Socrative because it does not have time limitation and allows students to move on by seeing the questions on mobile phones, by thinking and learning, but without getting stressed. Another important reason for preservice teachers' preference of Socrative application is that it has a variety of question types.

One of the statements regarding the reasons for preservice teachers' preferences of Kahoot or Socrative is as follows:

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"I prefer Socrative because it is more individual, non-competitive and stress-free. Besides, I think that variety of questions increases quality of learning" ÖA22.

Preservice teachers were asked if they would use Kahoot and Socrative when they started teaching profession. All preservice teachers stated that they would like to use such applications when they become teachers. Preservice teachers wondered if there were undergraduate classes about the development of such applications throughout their undergraduate studies and they stated they were willing to learn about these applications. On the other hand, preservice teachers suggested that in order for them to use Kahoot and Socrative in their own classes when they become teachers, all students need to have equal opportunities to use internet and technological devices. Preservice teachers also pointed out that school managers have to establish necessary infrastructure to use such applications.

Regarding this issue, ÖA27 stated:

"I first saw such an application (online assessment) at university. I was impressed. I would really like to learn how to prepare them and use them when I become a teacher"

"In my opinion, such applications should definitely be used in order to maintain visuality and adrenaline high because new generation uses technology effectively" (ÖA31).

Conclusion

As a result of the study it could be stated in line with preservice teachers' views that Kahoot and Socrative applications provide permanence of information and increase attention and motivation. Studies on various online assessment tools, which were carried out by forming experimental and control groups (Yapıcı and Karakoyun, 2017; Rouse, 2013; Lee and Hammer, 2011) reveal similar findings in that the two applications affect attention and motivation positively. The results of these studies show that motivation levels of the students in the experimental group are high. It is also seen that almost all preservice teachers think Kahoot and Socrative are fun. When relevant studies on other online assessment tools similar to Kahoot and Socrative are examined, it is seen that similar results were found and they support the findings of this study (Dellos, 2015; Freeman, 2015; Gürışık and Demirkan, 2019; Kuriakose and Luwes, 2016; Susilowati, 2017; Chou, 2017; Iwamoto, Hargis, Taitano, and Vuong, 2017; Yapıcı and Karakoyun, 2017).

It can be stated that in both applications there is a feature liked by preservice teachers: the results are shown immediately, in other words, feedback is given instantly. Similar studies (Gürışık and Demirkan, 2018; Iwamoto et al., 2017; Yılmaz, 2017) support this finding. Feedback has a motivating role in an individual's learning and works as a reinforcer depending on previous knowledge (Şahin, 2015). Therefore, feedback which is good and given timely supports effective learning process and develops relationships between teacher and students and between students themselves (Zengin, Bars, and Şimşek, 2017; Kangalgi, 2013; Şahin, 2015). Feedback which is not

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given timely may not only decrease the frequency of continuation of the correct behaviour but also cause improper behaviour to be reinforced and they may put students off the lessons (Tok, 2014). Instant feedback in Kahoot and Socrative gives an individual the opportunity to analyse his/her own learning process while allowing teachers to get to know their students.

Results of the study reveal that preservice teachers regard variety of questions in Socrative application as a positive feature since it makes learning more permanent. According to this result it could be suggested that preservice teachers would like to be in effective learning process although they experience learning process through digital tools that they really like and they even have fun as many studies also support.

Findings of the study reveal that while many preservice teachers think Kahoot is fun, some preservice teachers feel unhappy with the fear of answering the questions incorrectly as they hurry. It can be maintained that preservice teachers have the fear of competition although they are pleased with Kahoot application. Dellos (2015); Tetik and Korkmaz (2018) also found in their studies that Kahoot is fun but at the same time it causes anxiety. It is understood from the results that preservice teachers feel comfortable in advancing at individual speed but they mostly agree that it is more boring.

The results of the study show that for both applications preservice teachers think internet connection speed is important, it affects the process and it leads to unfair competition. Various studies in the field reveal similar results (Susilowati, 2017; Tutgun-Ünal, 2012). The reason for having problems in internet connection could be that each preservice teacher connects to the system on their own network. Many participants pointed out in the interviews that educational institutions need to provide facilities for such applications.

The study reveals that while Kahoot is preferred because of its music, visuals, projected scores, competitive atmosphere due to time limitation, fun presentation and in-class interaction, Socrative is preferred because of its variety of questions, opportunity to advance at individual speed, keeping a quieter atmosphere, and opportunities for academic learning. Literature review in the field shows that there are relevant studies which support the findings of this study (Dervan, 2014; Icard, 2014; Omar, 2017; Susilowati, 2017; Tutgun-Ünal, 2012). It is suggested that Kahoot, Socrative or other online applications (e.g. Plickers) have positive effects on learning and teaching process through different features (their design, being attractive, etc.).

Findings of the study reveal that all preservice teachers would like to use both applications in their future classes, learn how such applications are designed and used in preservice training process, and get support in internet connection and equipment. This finding is thought-provoking in that preservice teachers adopt the aim of being teachers who are successful and open to innovations, who follow technological developments. As Tutgun-Ünal (2012) also suggests, change starts with teachers. It is believed that one single method will not solve problems in teaching, but integration of technology

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into the learning process can revive the learning atmosphere and meet students' needs (Tutgun-Ünal, 2012). It is promising that new generation preservice teachers are aware of this and they want to develop themselves. Considering current technological era, it is predicted that online response systems used in schools will attract students' attention, students will be willing to participate in this process, and the quality of learning-teaching process will improve.

Suggestions

Considering that preservice teachers' views of the applications are positive in general;

- Online assessment tools can be used in training preservice teachers.
- Training can be given to teachers and preservice teachers about using online assessment tools.
- Selective courses about the design and use of online assessment tools can be offered in the faculty of education.
- Effective use of online assessment tools can be facilitated in primary and secondary education by providing students with opportunities to reach technology and internet (FATİH project).
- Experimental studies can be conducted in order to reveal if online assessment tools such as Kahoot, Socrative and others affect success. Furthermore, it is suggested that the effect of online assessment tools on students' emotions and on their addiction to digital tools is another dimension to be researched.

References

Baki, A. (2008). *Kuramdan uygulamaya matematik eğitimi* (4. bs.). Ankara: Harf Eğitim Yayıncılık.

Baylor, A. L. & Ritchie, D. (2002). What factors facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms*? Computers* & *Education, 39*(4), 395-414.

Beaty, L., Gibbs, G. and Morgan, A. (1997). Learning Orientations and Study Contracts. *The Experıence of Learnıng,* Chapter 5, 72-86.

Chou, C.C. (2017). An analysis of the 3d video and interactive response approach effects on the science remedial teaching for fourth grade underachieving students. *Eurasia Journal of Mathematics, Science and Technology Education, 13*(4), 1059-1073.

Çokluk, Ö, Yılmaz, K. & Oğuz, E. (2011). Nitel Bir Görüşme Yöntemi: Odak Grup Görüşmesi, *Kuramsal Eğitim Bilim*, 4 (1), 95-107.

Dellos, R. (2015). Kahoot! A digital game resource for learning. *International Journal of Instructional Technology and Distance Learning,* 12(4), 49-52.

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Dervan, P. (2014). Enhancing in-class student engagement using socrative (an online student response system): a report. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J),* 6(3), 1801-1813.

Ersoy, Y. (2005). Matematik eğitimini yenileme yönünde ileri hareketler-I: Teknoloji destekli matematik öğretimi. *The Turkish Online Journal of Educational Technology, 4*(2), 51-63.

Freeman, C. L. (2015). Technologies for formative assessment: Can web based applications transform the allied health science classroom and improve summative assessment outcomes.http://www.candicelfreeman.com/uploads/3/7/9/2/37925553/technologiesforformativeassessment.pdf

Gelbal, S. & Kelecioğlu, H. (2007). Öğretmenlerin ölçme ve değerlendirme yöntemleri hakkındaki yeterlik algıları ve karşılaştıkları sorunlar. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 33*, 135-145.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Technology Research and Development*, 29(2), 75-91.

Gürışık, A., & Demirkan, Ö. (2019). Opınıons of hıgh school students about plıckers: one of the onlıne formatıve assessment tools. *International Journal of Scientific Research and Innovative Technology, 6(1),* 11-25.

Heritage, M. (2007). What do teachers need to know and do?. *Phi Delta Kappan, 89*(2), 140 – 145.

Icard, S. B. (2014). Educational technology best practices. *International Journal of Instructional Technology and Distance Learning. 11*(3), 37-41. Retrieved from http://itdl.org/Journal/Mar_14/Mar14.pdf#page=41

Iwamoto, D., Hargis, J., Taitano, E. J., & Vuong, K. (2017). Analyzing the efficacy of the testing effect using Kahoot™ on student performance. *Turkish Online Journal of Distance Education, 18*(2), 80-93.

International Societyfor Technology in Education (ISTE) (2015). ISTE standards teachers, Retrieved August 19, 2015, from. https://www.iste.org/docs/pdfs/2014_ISTE_Standards-T_PDF.pdf.

Johns, K. (2015). Engaging and Assessing Students with Technology: A Review of Kahoot! *Delta Kappa Gamma Bulletin, 81*(4), 89. https://www.questia.com/library/journal/1P3-3787386771/engaging-and-assessing-students-with-technology-a.

Kangalgi, M. (2013). Beden eğitimi ve spor derslerinde dönüt kullanımının öğretmen boyutuyla değerlendirilmesi. *Eğitim ve Bilim,* 38 (170), 384-400.

Keeley, P.,Eberle, F., & Farrin, L.(2005). *Uncovering student ideas in science, 25 form ativeassessmentprobes*. Arlington, VA: NSTA Press.

This document downloaded from 194.27.35.70 [2 times] Gazi / Turkey on Mon, 22 Jun 2020 08:53:59 +0300

Kitzinger, J. (1995). Qualitative Research: Introducing focus groups. *Education And Debate,* BMJ 1995*;* 311, doi: https://doi.org/10.1136/bmj.311.7000.299 311:299.

Kuriakose, R. B., & Luwes, N. (2016). Student perceptions to the use of paperless technology in assessments–a case study using clickers. *Procedia-Social and Behavioral Sciences*, 228, 78-85.

Lee, J. & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic Exchange Quarterly*, 15 (2), 1-5.

McCargo, M. G. (2017). *The effects of Plickers as response cards on academic engagement behavior in high school students.* (Master's Thesis). Retrieved from https://aquila.usm.edu/cgi/viewcontent.cgi?referer=https://scholar.google.com.tr/&httpsredir=1&article=1347&context=masters_theses.

MacIntosh J. (1981) 'Focus groups in distance nursing education', *Journal of Advanced Nursing*, 18, 81-85.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Omar, N. N., (2017). The Effectiveness of Kahoot applıcatıon towards students' good feedback practıce. *International Journal of Social Sciences, 3(2), 2551-2562.*

Özçelik, D. A. (2010). *Ölçme ve Değerlendirme (3. bs.).* Ankara: Pegem Akademi Yayınları.

Richardson, A. M., Dunn, P. K., McDonald, C. & Oprescu, F. (2015). Crisp: an instrument for assessing student perceptions of classroom response systems. *Journal of Science Education and Technology, 24*(4), 432-447.

Rouse, K. E. (2013). Gamification in science education: The relationship of educational games to motivation and achievement (Unpublished doctoral dissertation). The University of Southern Mississippi, Ann Arbor. http://search.proquest.com/docview/1370800410?accountid=15958

Semerci, Ç. (2007). Eğitimde ölçme ve değerlendirme. E. Karip (Ed.) *Ölçme ve değerlendirme* içinde (s.1-15). Ankara: Pegem Akademi Yayınları.

Siegle, D. (2015). Technology: Learning can be funand games. *Gifted Child Today*, 38(3), 192-197.

Susilowati, E. (2017). The effectıveness of kahoot in supportıng grammar class on class a year students academıc year 2016/2017 of dıploma of nursıng Ngudı Waluyo Unıversıty. 2th Unnes–Teflın National Seminar 136-139.

Şahin, M.(2015). Öğrenme ve öğretme sürecinde uygulanan dönüt etkinliği ile ilgili öğretmen adaylarının görüşlerinin incelenmesi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi,15*(USBES Özel Sayısı I*)*, 247-264.

Şahin, Ç. & Karaman, P. (2013). Sınıf öğretmeni adaylarının ölçme ve değerlendirmeye ilişkin inançları. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 28*(2), 394-407.

This document downloaded from 194.27.35.70 [2 times] Gazi / Turkey on Mon, 22 Jun 2020 08:53:59 +0300

Tekin, E. G. (2010). *Matematik Eğitiminde Biçimlendirici Değerlendirmenin Etkisi* (Yayımlanmamış yüksek lisans tezi). Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul.

Tetik, A. & Korkmaz, Ö. (2018). Örgün ve uzaktan eğitim öğrencilerinin derslerde kahoot ile oyunlaştırmaya dönük görüşleri. *Journal of Instructional Technologies & Teacher Education,* 7(2), 46-55.

Tok, Ş. (2014). Öğrenme-Öğretme Strateji ve Modelleri. (Ed. Ahmet Doğanay). *Öğretim İlke ve Yöntemleri* içinde (s. 142-171). Ankara PegemA Yayınları.

Tutgun-Ünal, A. (2012). A study on characteristics of internet use of ceit students and their preferences. *Online Academic Journal of Information Technology, 3(6),* DOI: 10.5824/1309-1581.2012.1.002.x http://www.ajit-e.org/?menu=pages&p=details_of_article&id=28

Wang, A. I. (2015). The wear out effect of a game-based student response system. *Computers in Education*., 82, 217–227.

Yapıcı, İ. Ü. & Karakoyun, F. (2017). Biyoloji Öğretiminde Oyunlaştırma: Kahoot Uygulaması Örneği. *Turkish Online Journal of Qualitative Inquiry (TOJQI)* 8(4), 396-414. DOI: 10.17569/tojqi.335956

Yıldırım, A. & Şimşek, H. (2008). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri,* (6.Baskı). Ankara: Seçkin Yayıncılık.

Yılmaz, B. (2017). Dijital değerlendirme araçlarının ortaokul öğrencilerinin derse bağlılıklarına etkisi: İki farklı okulda durum. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 17 (3), 1606-1620.

Zengin, Y., Bars, M. & Şimşek, Ö. (2017). Matematik öğretiminin biçimlendirici değerlendirme sürecinde kahoot ve plickers uygulamalarının incelenmesi. *Ege Eğitim Dergisi,* 18(2), 602-629.

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