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Determination of university students' most preferred mobile application for gamification

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Abstract

In this digital age of technological advancement, mobile applications are fastly approaching acme of development. In order to increase the efficiency of the developed applications, mobile applications which are suitable for gamification have become a contemporary issue. In this study, the applications of Kahoot, ClassDojo, Classcraft and Socrative which are suitable for gamification were examined. The study was conducted with the students in the department of preschool education at Near East University. 130 students participated in this research. The data were collected with survey method and analyzed with the SPSS program. According to the results, it was revealed that Kahoot was the mostly preferred application by students who used applications designed or suitable for the gamification method and Android was the mostly preferred operating system in the mobile devices of the students. Future research should determine the achievements, motivations and opinions of the students related with the gamification method. Besides, it can be inferred that Kahoot would be the learning platform of the future and it should be integrated into classroom activities.

Keywords: Gamification, Kahoot, mobile device, operating systems

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1. Introduction

Recently, many applications began to be developed with the advancement in the technology. In order to increase the effectiveness of these applications in education; mobile applications suitable for gamification method have become a contemporary issue.

When these mobile applications begin to be used as a support for lectures; it is considered that teachers who are defined as digital immigrants in these days would be beneficial for students and increase their interest in the lecture (Yildirim & Demir, 2014). It is a fact that the use of new technologies are also important for attracting the digital natives' attention (Karaaslan & Budak, 2012). In this situation, increase in-class competition is enhanced with gamification method and gamified mobile applications in order to keep the attention levels of students high in the class (Yildirim & Demir, 2014). Duolingo is an example of these applications and it is the most preferred application in language learning (Garcia, 2013). It is preferred by the students since education of different languages is funny and motivates the students. Another advantage is that, this application is also usable in IOS and Andoid mobile devices. Being able to share their own levels on social media also motivates the students (O'Donovan, 2012).

It is aimed to keep students' motivations at high level and support certain behaviors with gamified education (Simoes, Redondo and Vilas, 2013). It motivates the students by facilitating effective learning through various play materials and ensures that students generate richer experiences in their daily lives (Kim & Lee, 2013).

It can also be described as a method in which one or more people compete their knowledge together or in different places in order to acquire positive behavior with educational plays (Dominguez, Saenz-de-Navarrete, De-Marcos, Fernandez-Sanz, Pages and Martinez-Herraz, 2013). According to Lee & Hammer (2011), educational plays might be preferred for positive behavior change among students through affecting cognitive, affective and social domains.

According to Birch (2013), in order to achieve determined behaviors, it is indicated that a very good integration should be implemented into learning environments and in this context, the necessity of examining the applications developed in the areas of gamification and education has emerged.

Based on these research, definitions of gamification applications which students mostly prefer in our research are provided in the following:

1. Kahoot: Kahoot application means a play-based in-class answer retrieval system. It is an application in which students try to find the correct answers to questions prepared before the lecture on any device which they can connect to the internet (desktop computer, notebook, tablet, telephone, etc.) through reflecting the questions to the screen with projector. This application is considered as an application which can be used for universities and institutions about improving performance. Students are asked questions, asked to think and expected to give answer with the mobile devices in their hands. Students who participated in the activity with this method can get their motivations with the award and points that they won. Thus, students find the opportunity of acquiring skills of controlling the information that they learnt in the class and being a leader in group competitions as well. Kahoot application which acquires the students cooperative winning philosophy has an easy nature to use. The biggest advantage of the application is that, it is both web-based and free application and supported by mobile devices (Kahoot, 2015).
2. ClassDojo: This is a play-assisted class management application which can be used by teachers, parents and students. It currently has more than 35 million users. It is a system that can give positive feedback about class applications done by students through this application and it is also an application that facilitates the involvement of parents to the system and keeps the communication between teacher, student and parents alive. In

addition, it has a perfect reporting system. This application is completely free and it ensures the participation of teacher, student and parents in education in the learning process through saving time. This application renders learning as a reinforcer with virtual characters which can be generated towards various emotional and social conditions. Through ClassDojo, teachers acquire class management in an effective and funny way (ClassDojo, 2015).

3. Classcraft: Classcraft aims to render the lectures edutainment and funny by applying an adventurous learning method in the form of game play role. Classcraft is free for limited applications and paid for extra application materials. Students are expected to gain reward by taking risk in the created play environment and student motivation is aimed to be provided. Philosophy of winning together is trying to be taught by providing cooperation among students. Besides, it increases entertainment in the class. In this application, students try to collect points and manage their power. This application is reflected through projector and students can participate in the application with tablets and laptops (Classcraft, 2015).
4. Socrative: This is a play-based application which can be applied simultaneously in the class through visual questions. Socrative application is a free application which can be applied for students to understand lecture topics better and make cooperative discussions. In this application, students can immediately get feedback and answer the questions with their own tablets and smart phones. Students try to collect points by answering the questions constituted by the teacher with mobile devices in the class. It is a gamification application that can be used easily in which students can get immediate feedback from the teacher about given incorrect answers and students can also acquire leadership phenomenon in group activities (Socrative, 2015).

Within the scope of this study, it was aimed to determine the gamification applications mostly preferred by university students in education.

2. Aim of the research

The aim of this research is to determine the most preferred mobile application by students from the Department of Pre-School Teaching in information technology courses for gamification. To achieve this aim, investigation was carried out to receive answers to the following questions:

1. What are the students' most preferred smart phone, tablet and notebook operating systems?
2. What are the students' most preferred gamification applications in information technology course?

3. Methods

3.1. Participants

130 volunteered undergraduate students participated in this research from the Department of Pre-School Teaching at Near East University. This research was conducted during 2014-2015 spring term. The mean age of students was 19 and 5% of the students were male and 95% of them were female.

3.2. Instruments

In this research, data were collected through the survey of students preferences on mobile application operating systems for gamification.

3.3. Data analysis

Collected data were analyzed with IBM SPSS software and the results were given in frequencies and percentages.

4. Results and Discussion

4.1. Most preferred operating systems

Table 1 shows students' preferences of operating systems when they use their mobile devices (tablet, smart phone, notebook). 27% of students preferred IOS with the frequency of 35, when they used tablet while 61% android with frequency 79 and 12% for windows operating systems with tablet of frequency 16 and 45% of them for IOS with the frequency 58 with smart phone. 50% of them preferred Android with frequency 65 and 5% of them with frequency of 7 preferred Android with smart phone. Lastly, 2% for IOS with notebook, frequency of 3, 0% for Android with frequency of 0 with 98% of students preferred Window with frequency 127 when they use notebook.

Table 1. Students preferences of operating systems

Devices	IOS		Android		Windows	
	F	%	f	%	f	%
Tablet	35	27	79	61	16	12
Smart Phone	58	45	65	50	7	5
Notebook	3	2	0	0	127	98

When the results of this study were compared with the research by Yim (2013) and Bucerzan, Ratiu and Manolescu (2013), it discovered also seen that, the most preferred operating systems are Android, iOS and Windows. According to Bucerzan, Ratiu and Manolescu (2013), the reason for Android to be the most preferred operating system is that it provides an opportunity to develop open source coded and free application.

4.2. Most preferred gamification application

Table 2 demonstrates the level of students' preferences among the below listed gamification applications, 12% of them preferred Socrative with the frequency of 15, this makes Socrative to be the least preferred, 20% for Class Craft with frequency of 26, 29% for Class Dojo with the frequency of 38, while 39% for Kahoot with the frequency of 51, making Kahoot to be the most preferred gamification application preferred by the students.

Table 2. Students' level of preferences of gamification applications

Gamification Application	f	%
Kahoot	51	39
ClassDojo	38	29
Classcraft	26	20
Socrative	15	12

The results of the study indicated that Kahoot is the most preferred mobile application by the students. Anderson (2014) revealed that the number of users of Kahoot's gamification application

increase each passing day and the reason of this is that Kahoot has a characteristic which increase motivation and competence.

5. Conclusion and recommendations for future studies

Nowadays, with the increase in the use of mobile technologies, in addition to various methods used in classes, benefits from technological devices have been increased. According to the results, it is seen that Android is the most preferred operating system by the students when they use their smart phones. As it can be seen from the results of the study, all the students participated in this research have smart phones. When the students are asked to indicate their most preferred applications related with gamification method, the results revealed that Kahoot is the most preferred gamification application by the students.

These results showed that Kahoot application can be uploaded to the smart phones of the students and gamification method with Kahoot application can be used in order to increase in-class competence and bring students interest in the course to the highest level. It is recommended that future research should conduct experimental studies by using Kahoot application to apply gamification method.

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