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**Research Paper** 

# Kahoot!: Bring the Fun Into the Classroom!

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Abstract:

During the height of 21<sup>st</sup> Century Learning, educators across the globe are demanded to find ways, methods and techniques to engage modern learners in the learning process. Nowadays, with the simplicity provided by the Internet, it is not as difficult and painful to help with the process. One of the fun ways to educate learners is with games, digital games. Games are usually intended to increase learners' desire for competition, goal achievement and genuine self-expression, all in the while games are also great to promote interactivity, have a set of rules with a quantifiable result, can be colorful, as well as appealing and extremely realistic. This paper is based on an interactive workshop which was focused in exploring the app, Kahoot!, that claims to provide educators with a chance to create a game-based assessment in different forms, such as multiple-choice questions, jumbled vocabulary, jumbled sentences. Healthy competition and rewarding good ideas provided by Kahoot! app also said to be motivational both to educators and for modern learners. It is expected that through this workshop participants are comfortable and able to incorporate Kahoot! into a variety of learning environments and will have the opportunity to design game-based learning events that can be used in the classroom. Finally, the workshop provided an opportunity for participants to discuss strengths, weaknesses, benefits and challenges in using Kahoot!

Keywords: Digital game-based learning, gamification, modern learners, Kahoot!

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## Introduction

We could all agree that the 21st century teaching and learning proses are comprised with complicated mix of challenges and opportunities for both educators and learners. Modern learners are in need and deserve motivating, supportive instructional environments, engaging content, and the opportunity to learn in settings that support collaboration with peers, teachers, and the larger world community. (Blackboard.com, 2008) Modern learners are inseparable with digital live. The consume of the internet, text message, social media and multimedia are natural everyday live activities for them and they expect the use of technology in their academic lives as well. There is a disconnection between the way learners live and the way they learn. Closing this gap is a grand challenge for either educators and school nowadays.

Games has been used to complement traditional lectures to enhance learning for decades. According to Tom Malone's theory of intrinsically motivating instructions, there are three categories that make things fun to learn: Challenge (goals with uncertain outcomes), Fantasy (captivate through intrinsic or extrinsic fantasy), and Curiosity (sensor curiosity through graphics and audio, and cognitive curiosity). (Lieberoth, 2015). The theory stated by Malone on the 1980s, is still very much applicable for the teaching and learning proses nowadays, however the urgency becomes greater. Jane McGonigal, one of the greatest gamification enthusiasts and experts stated that games can be applied as supporting tools measuring participants' achievements, progress in learning, enhancing cognitive processes, supporting patients in getting over specific medical conditions, simulating real life contexts in order to prepare the participants for the forthcoming events (Zarzycka-Piskorz, 2016). Games is the world in which action is triggered by rewards, fun and competition; where creativity, problem solving, team work, determination, various skills are being developed. And this fact can no longer be unnoticed by the education world.

Based on the fact that modern learners are very much engaged with technology and that education can no longer ignore the idea that games can be one of the platforms of learning, digital games that can be used for education are evolving rapidly. Kahoot! is one of the well-known game-based learning platform that is very user friendly for both educators and learners. It is an innovation of Johan Brand, Jamie Brooker and Morten Versvik in collaboration with the Norwegian University of Technology & Science. (Wikipedia, 2017) This game-based application is especially designed and aimed to repeat and or to review the knowledge of the learners and to assess in the form of light quiz in a fun way. Kahoot! currently owns four kinds of form which are: Quiz, Jumble, Survey and Discussion that can be used favorably according to needs and interests. Kahoot! also provided free app that makes it more versatile for educators and (modern) learners alike.

Earlier studies revealed that using Kahoot! to enhance learning process in the classroom is more effective than using traditional media. Iaremenko, Natallia V. (Iaremenko, 2017) investigated the motivating effect of using Kahoot! on English language learners. The result showed that the use of Kahoot! in the classroom was more useful, fun and engaging. The learners also claimed that they had learn the intended materials during the game. Notably, some studies focusing on using Kahoot! in the classroom proved that this game-based learning platform is an effective media to motivate and engage learners in the classroom. Those studies, however, were lack of specific information on the educators' perspective on creating the online game, Kahoot!.

In this respect, this paper is aimed to describe the potential of Kahoot! as a game-based learning platform, to discuss whether Kahoot! is useful and fun to use in the classroom and homework for educators and modern learners, to discuss the strengths, weaknesses, benefits and challenges of using Kahoot!, the ease of creating Kahoot! games and homework for the educators of as well as to mark the areas for further research. Through the workshop on technology-enhanced learning that took place in Solo on March 13-14, 2018, participants, have had the opportunity to design game-based learning events that can be used in the classroom. They experienced being the modern learners in the classroom and also had the chance to practice using the online app to create and prepare quiz events for modern learners to do.

## Method

Methods of collecting data is using surveys. Surveys are used to obtain data from certain real places (not artificial), but treatment in data collection, for example by distributing questionnaires, tests, structured interviews, etc. (Sugiyono, 2009). This survey method makes it easy to obtain data to be processed with the aim of solving problems that are the ultimate goal of the study.



According to Sugiyono (Sugiyono, 2009), the population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be studied and then conclusions drawn. The workshop was carried out with the group of 30 participants, mostly English language lecturers, teachers and tutors, between the age of 20 and 60 years old. Their level of English was upper-intermediate. They came from various institutions, schools and universities.

The data collection technique used in this study was a questionnaire. Questionnaire is a technique of data collection conducted by giving a set of questions or written questions to the respondent to answer. In this study, questionnaires were used in the form of open and closed questions. Open questions are questions that expect the respondent to write the answer in the form of a description of something. While closed questions are questions that expect a short answer or expect the respondent to choose one alternative answer from each available answer.

To make it possible to achieve the aim addressed in the paper, 3 sets of questionnaires were given to the participants during the workshop: the first questionnaire was generated by the Kahoot! system, consisted of 4 questions aimed to get information on the game itself and feelings participants can feel during the game; the second one was designed to discuss the advantages and disadvantages of creating Kahoot! and using it in the classroom and its relation to the goal of the creation of Kahoot! in relation to Tom Malone's theory of intrinsically motivating instructions and the third one was a questionnaire designed to evaluate the ease of using and creating Kahoot! game. The collected data is then compiled, explained, then analyzed (analytical methods), visualized in the form of tables or graphs, and interpreted. Conclusions from the data obtained are also associated with existing theories.

Kahoot! is one of the simplest game-based learning platform to use by educators and learners. For educators especially, there are some apparent advantages in using this application, which are:

- Free. There is no cost for creating, playing and sharing Kahoot!
- The application easily fits to a wide range of learning environments
- It presents a fun and challenging way to engage modern learners into learning;
- The quiz game can be done not only individually but also in teams.

One way to use Kahoot! is to be played in the classroom by the whole class in real time. When playing Kahoot!, the participants need to log into the system using a gamepin (a number) and a nickname (See Figure 1). Multiple-choice questions are projected on the screen and learners then have the capability to answer questions through a variety of devices (computers, laptops, pads and or smartphones) using colors and shapes to connect to the answer. The goal for the learners is to choose the correct answer as fast as possible and to get as many points as possible. Educators can use ready-made Kahoots that have been created by others or create their own quizzes, jumble questions, discussion and or surveys based on their preferred topic. The website even tracks participants' achievement by looking at what the they did during the Kahoot!, as well as overall achievement while logged in.



Figure 1. Playing Kahoot! Using a Gamepin

Here are the simple steps of creating and using Kahoot! in the classroom (Kahoot! Team, 2016):

- 1. Open Kahoot! website: kahoot.com and sign up to get an account.
- 2. Log in to *create.kahoot.it*. Once the log in successful then find and click Quiz, Jumble, Discussion or Survey to create a fun learning game, made from a series of multiple choice questions.

Quiz is the most commonly used format as it includes timed responses and a points system creating a competitive atmosphere. Survey is similar format with Quiz however it does not use points. Discussion format is actually identical with Survey format, but it only consists of one question. This can be used to ignite discussion and debates at the beginning or the middle of a study session. And lastly, Jumble, come with a twist by challenging participants to place answers in the correct order rather than selecting one correct answer.

3. Add a description, tags and cover image

Adding a good description helps to define learning objectives for the game and keep it focused.

4. Create the learning game by adding questions, answers and imagery

Follow the instructions on-screen to add questions, answers, images and video clips. It is also very flexible for educators to adjust the Kahoot! using different timer and points settings or setting multiple correct answers.

5. Launch the game so participants can join

Once the game is done, click the play button. Change the game options according to preferences, and then click Classic to play with one device per person, or Team Mode to play with one device per team. A unique game PIN will be displayed at the top of the screen. Participants go to kahoot.it and enter the Game PIN, then enter their nickname.

6. Play the Kahoot!

Click "Start" once all the participants' nicknames are visible on the waiting screen.

By 2017, the founders of Kahoot!, and the team, released a new feature: challenge. It is expected that with the new challenge feature, educators can assign Kahoot! quiz as homework, so that the learners can play the "homework" on their own phones (See Figure 2). This feature is as easy and fun as playing Kahoot! quiz in the classroom, except learners can play it anytime and anywhere they want within the due date. Learners can also keep track of their score and compare them with their classmates, this sure will give them an urge to want to be better than their friends' achievement. To maximize the use of this feature, learners need to own their own Kahoot! account and app on their devices. The Kahoot! team claimed that this feature will make homework engaging, increase its completion rate and save educators' time on correcting assignments.

Kahoot! Q. Find Kahoots 🔺 My Kah			
	Questions (5)		
	Challenge others to pla	x Challenge ay Surga Tersembunyi di mobile app. Learn more	20 sec
Constitution advant	Days from now	Time of day	
Surga Tersembunyi di Indonesia A public quiz for training	3 🔹	12:00 PM 🔹	÷:
Play     Challenge     Challenge       Kuis mengenai tempat-tempat indah di indonesia berdasarkan versi 'On the Spot'       0     2     7	Due date and time: Mar. 0	8, 2018, 12 PM Next	20 sec
Skortes plays players  Chechan  Created 4 clays app  Created 4 clays app  Copy and share this playable link  Draps JblayAnoot JW/Tquird +CTTEP94 Cads 4el5-	Q4: Stalaktit adalah		≜⊕ ⊜.≣. 20 sec
8880-17674229046b.	Q5: Kata bercengkera	<b>ma</b> di video ini paling dekat artinya der	igan

Figure 2. Creating Challenge in Kahoot!

Here are the necessary steps of using Kahoot! as homework (Latham, 2017):

- 1. Open the Kahoot! quiz intended for the homework.
- 2. Click on the Challenge button and follow the instructions to set up a challenge. Choose when the challenge should end.
- 3. Copy the challenge link, and share it with the participants via email, text messages, etc. or share the PIN of the challenge.
- 4. Once the participants open the challenge link, it will take them to the app automatically.
  - If they preferred to use the challenge PIN, they will need to enter the code manually when they launch the app.

Access and review the participants data at any time to see who has completed the challenge and how many questions they have answered.

## **Result and Discussion**

The result and discussion will be divided into three parts, the first one is the one generated by the Kahoot! system to assess the game itself and the feelings of participants during the game, the second is the advantages and disadvantages of creating Kahoot! and using it in the classroom and the last one is the ease of using and creating Kahoot!.

#### The Game and the Feeling of Participants During the Game

In the beginning of the workshop, the participants were asked whether they are familiar with the application Kahoot! By the show of hands, it indicated that none of the participants were aware of such application. Most of the participants were enthusiastic to learn more about Kahoot! application, they were eager to download the application before the start of the workshop. After a brief background on Kahoot!, a demo of a Kahoot! game was shown to give the participants the experience of playing Kahoot! in the classroom. The topic chosen was a light one that everyone can relate which was: Subject Verb Agreement which was consisted of 10 numbers. As indicated in Figure 3 below, the survey result shows that after playing the first Kahoot! game, 30 out of 30 participants really enjoyed the game. It is shown by the score 5,00 out of 5 points for the feedback "How fun was it?" In response to how much information they gained by playing the game, 28 out of 30 participants agreed that they learned something. Each and every one of the participants felt 100% positive toward the game and all would recommend the game to others. This result associates with the previous study by laremenko (2015) that shows the learners to be active and open to learn through this media.

Subjec	t Verb A	greem	ent Prac	tice				
Played on	13 Mar 2018							
Hosted by	Ghechan	Ghechan						
Played with	30 players							
Played	10 of 10 questions							
Overall P	erforman	се						
Total correct answers (%)		86,21%						
Total incorrect answers (%)		13,79%						
Average score (points)		9767,25 points						
Feedbac	k							
How fun wa 5)	s it? (out of	? (out of 5,00 out of 5						
Did you lear something?		93,33% Ye	s	6,67% No				
Do you reco	ommend it?	100,00% Y	100,00% Yes 0,00% No					
How do you	feel?	۲	100,00% Positive	۲	0,00% Neutral		0,00% Negative	

Figure 3. Screenshot of Result of the Survey Generated by the Kahoot! System

Throughout the workshop, it can be seen that majority of the participants were fully engaged in the game. The topic given was light and makes them eager to want to try more. This also have connection with Tom Malone's theory of intrinsically motivating instructions that stated there are three categories that make things fun to learn, Challenge, Competition and Fantasy. The participants were really eager and had fun mainly because of the challenge and competition which they had to undergo to get to the top of the game. Other than that, it also intrigues their fantasy where they feel like they were in a live gameshow. Overall, they were satisfied with the game and the feeling they feel during the game.

#### The Advantages and Disadvantages of Creating Kahoot! and Using it in the Classroom

The activity after the game demonstration was for the participants to try and create their own Kahoot! game that will be used later on their own classrooms or communities. The participants then give their thoughts on a digital board on: <u>https://padlet.com/ghechan83/kahoot\_create</u>. Here are some of the excerpts from the digital board discussion that shows the advantages of creating and using Kahoot! in the classroom:

Wow! It is so easy and fun to create this game. I will try to make one for my classroom soon.

First thing first, it is free. And free is always good.

Complete result of the game can be downloaded so the teachers can see the pace of each student or group.

I love how I can use pictures and videos in the questions. I think my students will love it!

The instructions on how to make the quizzes are very easy to follow. Even my students can make quizzes as well.

Those statements show that the participants find the application to be easy and helpful for the educators and it will be equally fun to be used in the classroom. Being a freeware also become one of the best advantages of Kahoot! From the discussion result, this can lead to future research in schools or even higher-level education.

In spite of the fact that most of the result of the discussion are positive, several disadvantages came up on the discussion board. Here are the excerpts that show the disadvantages of Kahoot!.

What if the internet connection is not good? Then we cannot play Kahoot.

The downside of this game, is it requires internet.

I think it will take time to explain to the students how to play the game. And also, they might have difficulties joining the game because in my school, the internet connection is so so poor.  $\varnothing$ 

Limited length of character for the questions.

The statements above show how the main problem that the educators and learners will likely face is: internet connection. Not all parts of Indonesia own adequate internet connection, and this will have obtained the use of the application. The last excerpt shows that during the creation of a game, there are limits of character

use for the questions. However, this can be avoided by screenshotting the lengthy questions and posting it as a picture instead.

#### The Ease of Using and Creating Kahoot!

The last questionnaire was created using the Kahoot! survey. As described in the Table 4 below, in regards to the ease of use of Kahoot! in general, 90% to 100% of the participants who joined the workshop have positive responses on Kahoot!. More than 50% of them still have doubts on using Kahoot for homework, possibly because the workshop did not cover a lot on that subject of matter.

				-		•	-		
	Question	Answer 1	result	Answer 2	result	Answer 3	result	Answer 4	result
1	Will you use Kahoot! in the classroom?	"of course!"	100%	"no way."	0%				
2	Is it easy to create Kahoot!?	"Yes, quite!"	93.33%	"Such a pain."	6.67%				
3	Is it fun to play Kahoot!?	"Yes!"	100%	"Ugh"	0%				
4	How many times do you think it is proper to play Kahoot! in the classroom ?	"each meeting for 10 - 15 minutes"	16.67%	"every month"	70%	"when the students ask"	10%	"as much as possible"	3.33%
5	Will you use Kahoot for homework ?	"For sure!"	33.33%	"Maybe not."	66.67%				
6	Do you think Kahoot! homework will be useful for your students?	"I think so!"	33/33%	"I don't think so"	66.67%				
7	What do you think of this workshop?	"enough "	0%	"good"	76.67%	"we want more!"	23.33%	"not satisfying enough"	0%

#### Table 4. Example of a Full-Page Table (Source)

Based on the result of the questionnaire above, it can be implied that the participants of the workshop, as educators, recognized the need to engage the learners in the classroom using technology. However, some educators face challenges to shift from traditional lesson formats towards the methods that can help learners to understand the materials better using technology (ChanLin, Hong, Horng, Chang, & Chu, 2006). Throughout the workshop, the participants discussed informally about how they will use the technology (Kahoot!) to incorporate the app into the classroom. More than 75% of the participants enjoyed the workshop and the rest requested for more workshops on Kahoot! in the future. This number shows that the participants are eager to learn more about the use of Kahoot! and the implementation in the classroom.

## Conclusion

In conclusion, the results and discussions show that the participants had positive enthusiasm toward the Kahoot! game in the classroom and they also showed their satisfaction with the making and or creating their own game on Kahoot!. They claimed that this game will be useful not only to review the materials that they will present later in the classroom but also will create a fun and interactive atmosphere. This is reflected by the enthusiasm of the participants shown throughout the quiz (100% fun/enjoyment). The intrinsic motivation that they experienced during the modeling was enhanced by the desire to win. Thus, as educators, they can use this to enhance the learning activities within the classroom and especially with the modern learners that they are facing. Again, this is shown by 100% of the participants present at the time of the workshop declaring that they will definitely use the application in their own learning environment. The downside of this game-based learning application is getting connected to the internet whether to create the game or to play the game in the classroom. Educators will need to make sure the internet connection is stable before conducting the game.

Besides all the positive responds on the game-based learning, Kahoot!, there are still many problematic issues that can be brought up for further research. Some of the areas could be: meaningless gamification or the useless implementation of the using games (Kahoot!) in teaching and learning; how effective can Kahoot! homework be?; etc. Therefore, it is suggested that these research problems could be presented on future empirical studies.

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