# Utilization of Kahoot Learning Games as Interactive Learning Media

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**Abstract**
The world of education certainly cannot be separated from teaching and learning activities. Educators are required to be able to make the learning atmosphere feel fun and exciting. Educators are required to be able to take advantage of existing learning media, whether it's modules, worksheets, or electronic books to be optimized as learning support tools both in the inside and outside the classroom. Effective, conducive, and creative learning in this modern era has changed the style and process of learning. Outbreak of the covid-19 requires teaching and learning activities to be carried out remotely relying on internet technology. Kahoot is a web-based learning media which in its operation involves educators and students to interact and conduct interactive learning in the form of games, quizzes, surveys, and polls. The use of Kahoot as a learning media is considered appropriate because both students and educators have been confirmed as active internet users. The use of the internet for learning can also brighten the view that the digital world is increasingly sophisticated, educate students to surf the internet wisely, and learning activities teaching is not always monotonous and boring.
**Key words:** Education, Kahoot, Learning Media, Game Base Learning

## INTRODUCTION

The era of the industrial revolution 4.0 brought a major influence on changes in all sectors of life, including the world of education. The industrial revolution has had a major influence on the interaction behavior between educators and students, plus the outbreak of the Covid-19 epidemic that is relentless and constantly evolving has led to new variants that have resulted in all activities around the world being forced to experience delays for some time in the industrial sector, transportation, tourism, to education. A very striking change in the world of education is the changing style and learning process. Teaching and learning activities that were originally carried out directly (face to face) in one room have now shifted and turned into Distance Learning by collaborating with the use of the internet.

In the world of education, the use of technology is not a new thing that is used in daily activities in teaching and learning. As time goes by, educators who used to do learning still use the manual method, namely writing on the blackboard and then switch to using computers which facilitate the performance of educators in making teaching materials with existing programs. Currently, there have been many uses of technology used in the world of education such as: power points teaching media and LCD projector as display media. Then now there has been more massive technological developments in the world of education with the existence of learning media created by application developers that are provided free of charge or paid.

Learning media is an important component of learning resources. The existence of learning media also determines the success of a lesson. According to Sanjaya (in Prastowo, 2017: 292), learning media is the main thing in the learning process because learning media really support the learning process optimally, effectively, and efficiently in terms of cost and time. In addition, it can also attract students' interest in learning materials and be able to increase students' understanding of the material provided.

The use of information technology today in the world of education is one way to deliver teaching materials or materials that are interactive, fun, and not boring. The use of mobile phones connected to the internet allows learning media to be accessed anywhere. There are

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many applications that can be used as learning media developed by third parties for free or paid, one of which is Kahoot.

Kahoot is a web-based learning media designed like a game (game-based learning) which is able to increase the participation of students in the process of teaching and learning activities. A very attractive and not boring display makes Kahoot one of the ways to provide a fun learning experience that is provided free of charge. The Kahoot application as a learning technology platform combines learning evaluation experiences through interactive games equipped with a student activity monitoring system (Marissa Correia and Raquel Santos, 2017). Kahoot is a website that allows users, in this case, educators and students, to do learning in the classroom and outside the classroom. For educators, Kahoot's features can be used to create quizzes, discussions, surveys, and polls. Quiz created then displayed on the mobile phone or computer of students who have received PIN or access code to answer all quiz questions directly (real time) or scheduled depending on the configuration of the quiz made by the educator

Kahoot is platform collaboration result (joint projects) between the Norwegian University of Technology and Science with Johan Brand and Jamie Brooker as initiators. Kahoot has two website addresses, namely https://kahoot.com/ for educators and https://kahoot.it/ for students. Platforms Kahoot can be accessed and used all the features in it for free, but there are other features or menus that require paying but not so much. Innovation platform Kahoot is able to help learning evaluation activities become interesting, interactive, conducive, and easy to monitor learning outcomes (Kurnia Dewi, 2018). Kahoot is special to be implemented in teaching and learning activities because it prioritizes the process of evaluating learning through games that are carried out in groups or played individually with the condition that Kahoot users must be connected via the internet network. The learning evaluation process can be collaborated with many learning resources that are already available on the internet.

The objectives to be achieved in the training regarding the use of Kahoot learning games as an interactive learning media, are as follows:

1. Introducing and giving knowledge about Kahoot learning games as an interactive learning media.
2. Increase students passion for learning through game-based learning.
3. Implementing one of the roles of higher education institutions as a source of knowledge and technology for the community in the form of community service dharma.
4. Introducing the existence of Higher Education to the community.
5. Spread the word about the importance of using technology in education.
6. Instilling awareness to educators and students that technology which is increasingly rapidly developing requires us to be technology literate.
7. The application of technology as a learning medium is able to increase the interest of students in participating in teaching and learning activities held by educators. hoot.

## METHOD

This study is a research oriented towards learning media using Kahoot Learning Games that utilizes written materials such as books and journals as the main sources, proceedings, modules, and articles to analyze learning using Kahoot, and their relevance in facing the era of the industrial revolution 4.0 which demands changes. styles, patterns and learning processes, perspectives, thinking, and ways of acting between educators and students.

Community Service Activities are carried out in the form of training which will be held on October 30, 2021, from 09.00 to 15.00 WIB. The research was conducted on the people of Dukuh Sutorejo, Mulyorejo District, Surabaya City, East Java. The target community is educators, education staff, and elementary to high school students. The training is expected to have an impact and benefit on participants who are involved in applying current information technology for the learning process.

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## RESULTS

This section describes the discussion regarding the implementation of Kahoot as an interactive learning media.

### 1. Tools and Materials

In using the Kahoot learning media, there are tools that must be prepared before carrying out the process of teaching and learning activities and evaluating learning as shown in Table 1.

**Table 1.** Tools and Materials

| No | Teacher | Students |
|---|---|---|
| 1. | Laptop or computer | Laptop, computer, tablet or mobile phone. |
| 2. | Internet connection | Internet connection |
| 3. | Search engine | Search engine |
| 4. | LCD Projector (if face to face) | |
| 5. | Teaching Materials | |

## DISCUSSION

After the preparation in Table 1 is available, then carry out the next process, namely the stages carried out by educators such as making quizzes, discussions, surveys, or polls on the Kahoot platform. Before making a quiz, the thing to make sure is a Kahoot account. Educators must already have a Kahoot account, if not, the steps that must be taken are as follows:

a. Open the search engine available on the device (google chrome, mozilla firefox, safari, and so on).

b. Type in the url to access the Kahoot platform: https://kahoot.com/, which is shown in Figure 1.
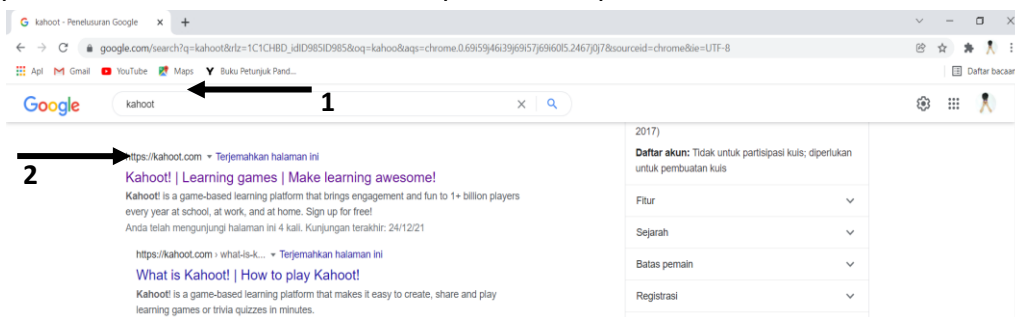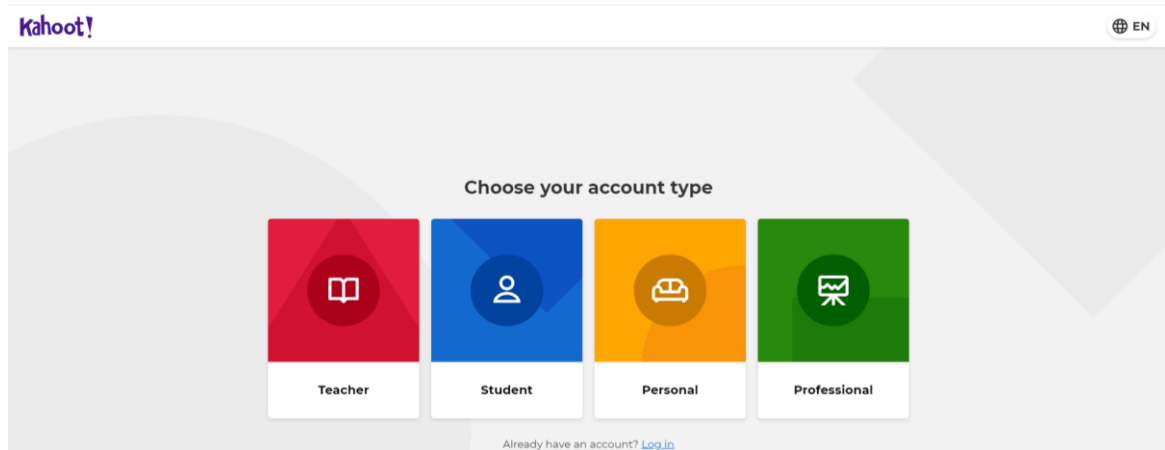


**Figure 1.** Display search engine when searching with keywords Kahoot.

c. After clicking https://kahoot.com/, then switch views as in Figure 2, then select sign up.
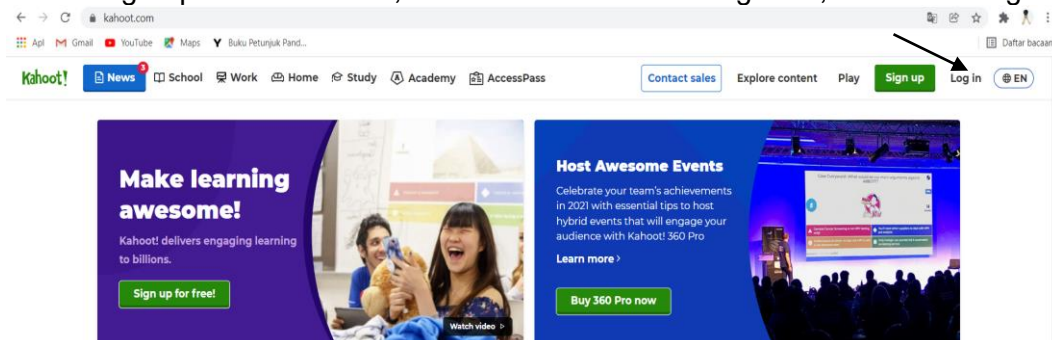


**Figure 2.** Initial view on the Kahoot website.

d.  Then several options will appear to set the type of account to be created, and the choice of use that Kahoot is intended for, as can be seen in Figure 3 and Figure 4.



**Figure 3.** Display of account type selection when first creating a new Kahoot account
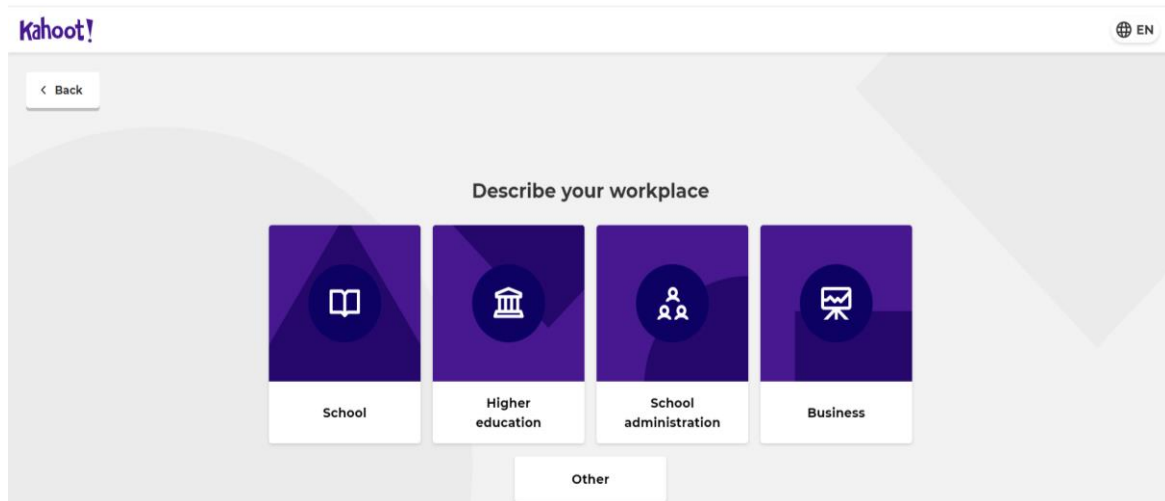


**Figure 4.** Display options workplace when you first create a new Kahoot account

e.  After you have finished configuring the account type, then create an account using an existing Google, Microsoft, Apple, or Clever account.
f.  After selecting an account, a choice of account types will appear free/premium. The features on the free account are qualified for learning activities so you can choose continue for free.
g.  After election free/premium has been done, then the page is immediately redirected to the initial Kahoot homepage on the account that has been registered earlier as can be seen in Figure 5.

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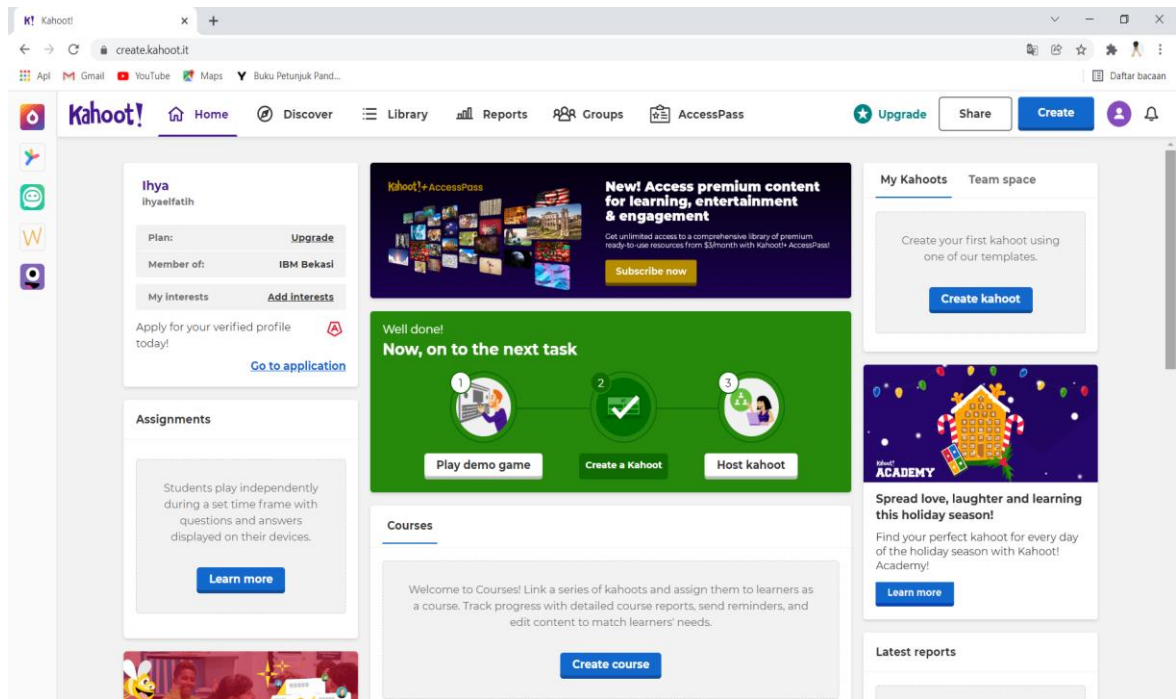


**Figure 5.** Kahoot homepage display

After the account has been successfully created, the next step the user takes, in this case the educators, is to create a quiz with the following steps.
a.  On the home page, click the buttoncreate located at the top right of the monitor screen.
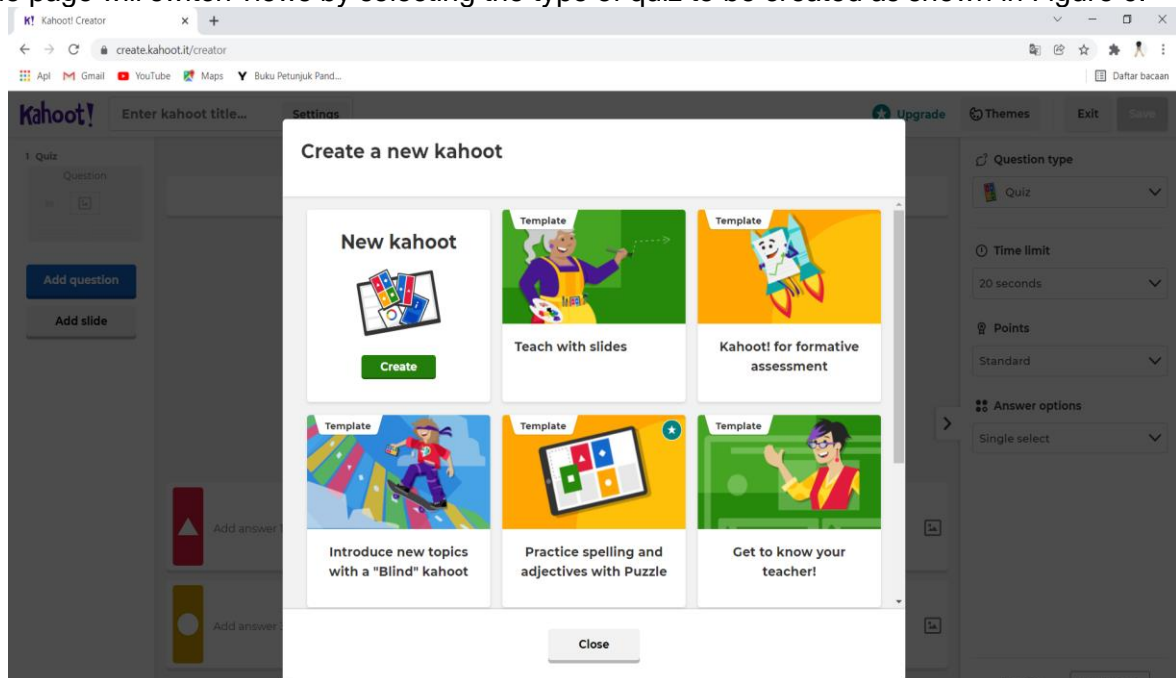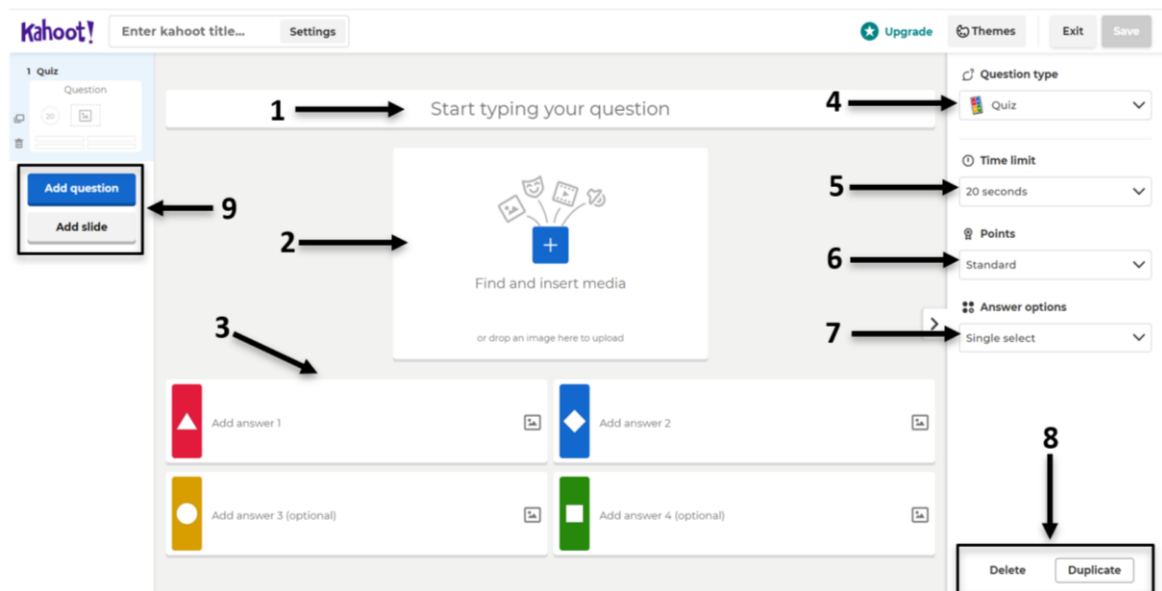b.  The page will switch views by selecting the type of quiz to be created as shown in Figure 6.



**Figure 6**. Pop-Up When the create button is pressed

c.  After selecting one of the displays in Figure 6, the next screen is the quiz creation shown in Figure 7.

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**Figure 7.** The process of making quizzes on platform Kahoot

The descriptions in Figure 7 are as follows:
1) Worksheet for entering questions. On typing your question in addition to text can also insert formulas.
2) Add pictures taken on a computer device.
3) Enter the answer choices. The correct answer is done by ticking the bullet provided as can be seen in Figure 8.
4) Quiz is the type of quiz given. There are many options available in Kahoot as shown in Figure 9.
5) Time limits the time setting for each question.
6) Points will be calculated based on the number of questions and the number of errors. Points the one in Kahoot's choice is standard, double point, and no point.
7) The answer options can be set. In Kahoot there are options single selector only one correct answer and multi-select to select several correct answers.
8) Duplicate is copying templates on the first question to the next question to make it easier.
9) Add slide intended if you want to add questions with the same format and can choose the choice of quiz type. Add slides can be used to change templates on the next question.
10) If you have finished making the quiz, then click the button save located in the upper right corner of the monitor. It should be ensured that the button save already blue, then it will appear pop-up to fill title question created, once filled in, then click OK.
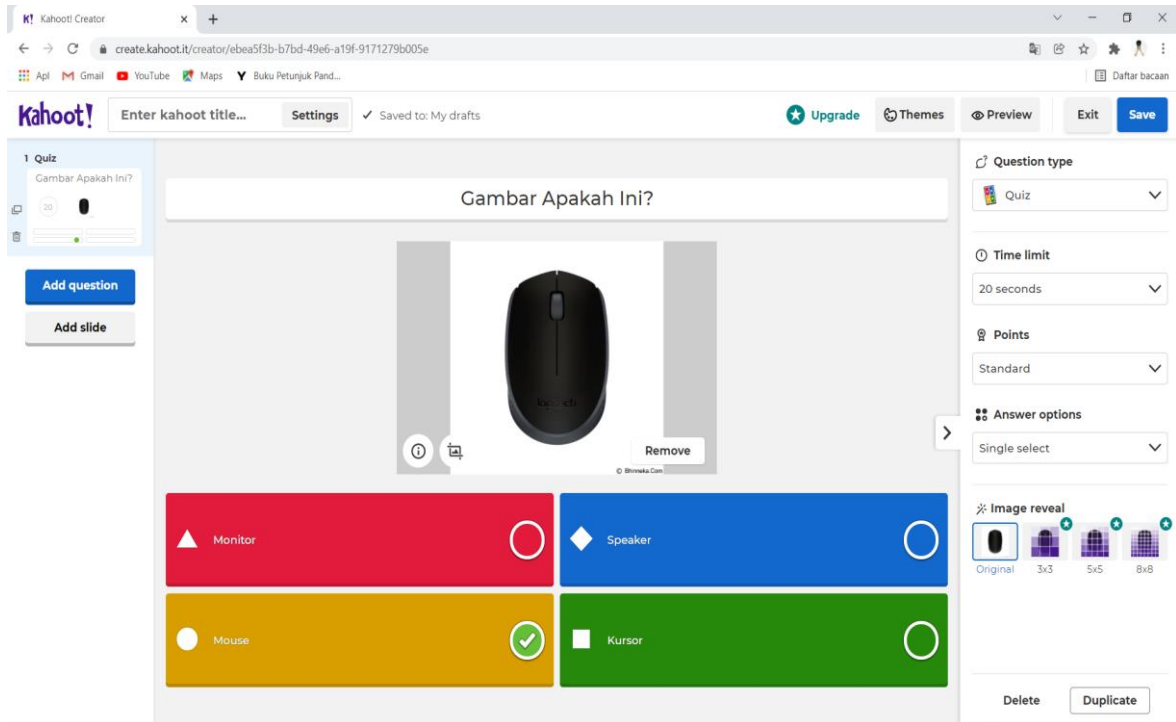11) Quiz completed.

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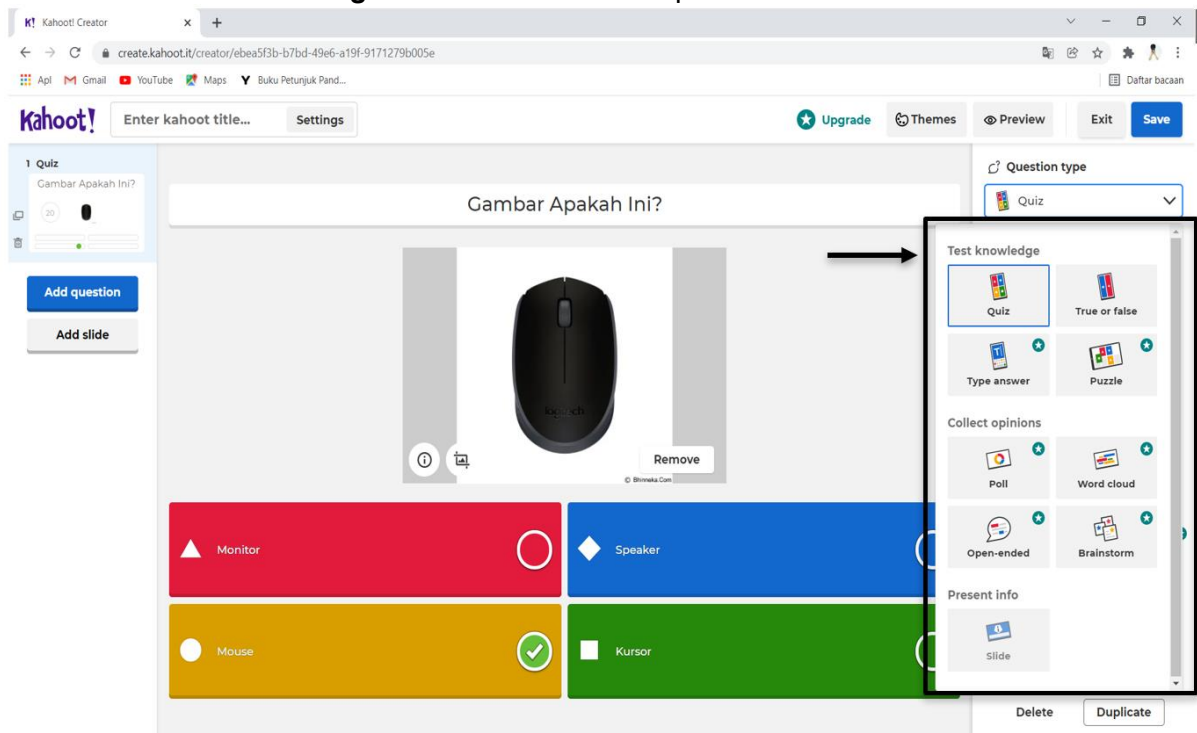**Figure 8.** Quiz creation on platform Kahoot



**Figure 9.** Display the question type menu on kahoot

After the question is successfully made, the next step that must be done by the educators is to start the quiz by selecting the menu on the home page library then click plays shown in Figures 10 and 11.
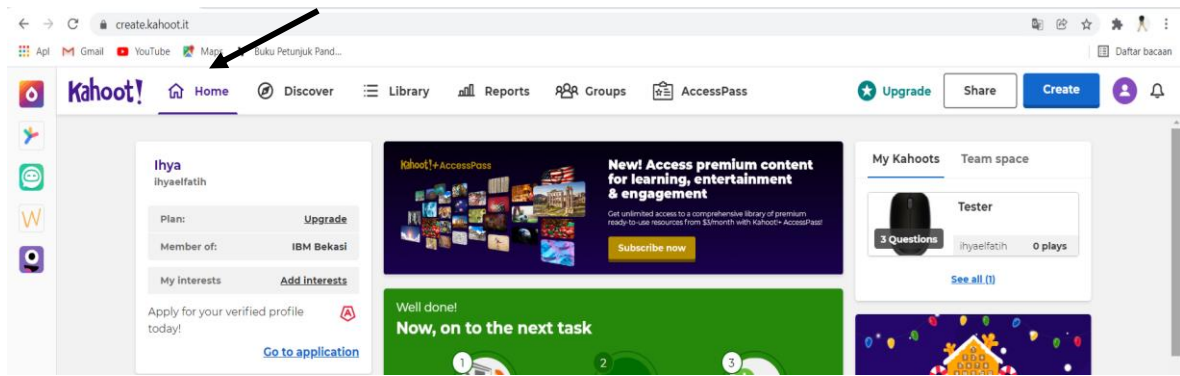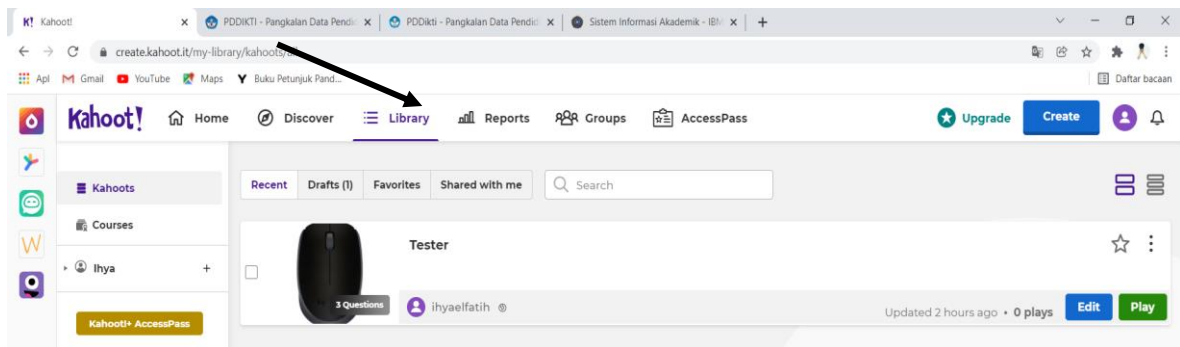
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**Figure 10.** Kahoot homepage view



**Figure 11.** Kahoot library display

After clicking play, which is shown in Figure 11, a pop-up will appear with the choice of whether the quiz will be held directly (real time) or in the form of an assignment (assignments) which can be seen in Figure 12.
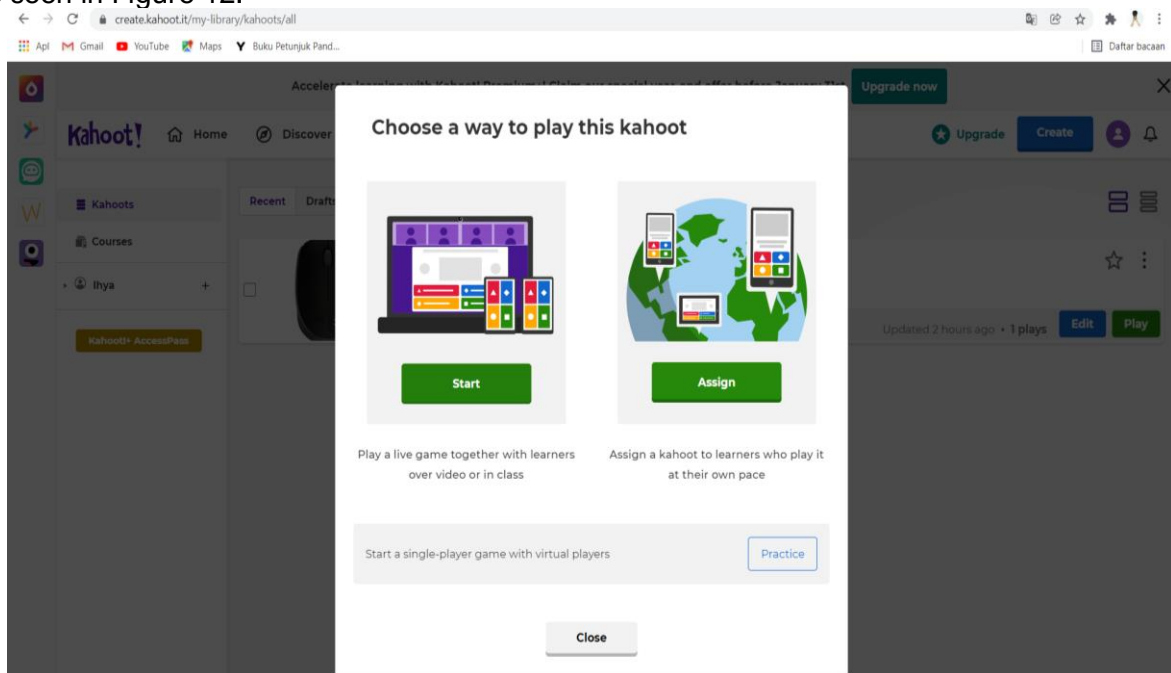


**Figure 12.** Pop-upsto run a quiz on Kahoot

If you choose game play directly, click the button start contained in Figure 12 it will be directed to a new tab. Press the button classic fashion and a PIN or access code will appear which will later be distributed to students to answer the quiz that has been made. The application display can be seen in Figure 13.
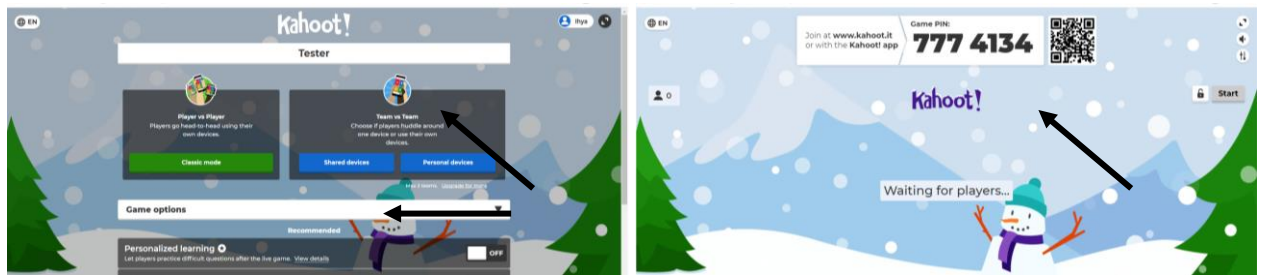
*Imam Riadi[1), Sunardi[2), M. Ihya A. Elfatiha[3)a), Ariful Aziz[4), and Amirul Mumin[5)*



**Figure 13.** The display of opening a quiz and getting a PIN on Kahoot

If the educator chooses a quiz as an assignment then press the assign button shown in Figure 14, then it will be directed to tab to determine the deadline for submitting assignments. When finished then select create then a new screen appears which contains a link and a PIN for student access to the quiz that has been created, changing the time for taking the quiz, and ending the quiz before the set time.
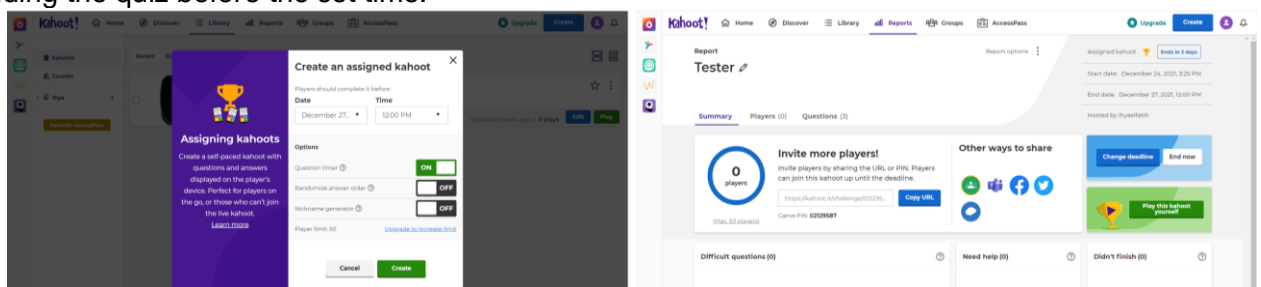


**Figure 14.** Display of scheduled quizzes on Kahoot

After all the series carried out by educators are complete, the last is to distribute PINs to students. The next step taken by students is according to the following stages:
1) Open the search engine available on the device (google chrome, mozilla firefox, safari, and so on).
2) Type the url to access platform Kahoot: https://kahoot.it/.
3) Then on tab a new input will appear to enter the PIN that was previously shared by the educator. After entering the PIN and pressing the button Enter then asked to give a name to identify who answered, then click ok. Figure 15 is a view of Kahoot For students when starting a quiz.
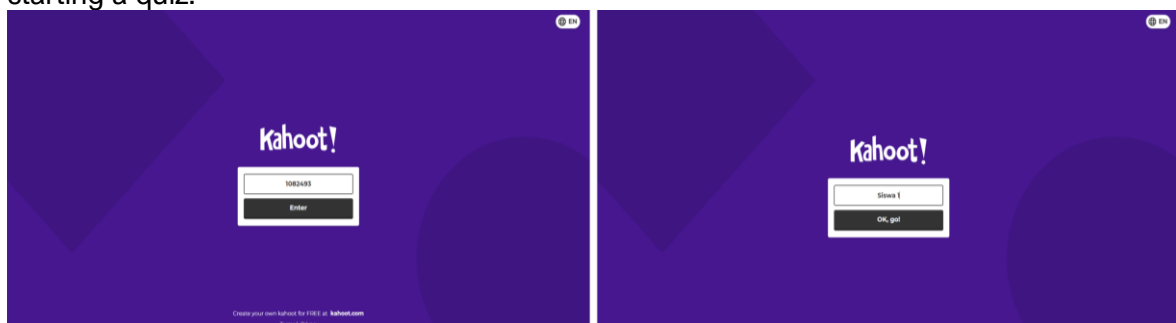


**Figure 15.** Kahoot view for students who want to start quizzes

On the account of educators, when students have done Enter on their web page, it will appear on the screen of the educator page in the form of the name of the student who entered the quiz and the button start which can be seen in Figure 16.
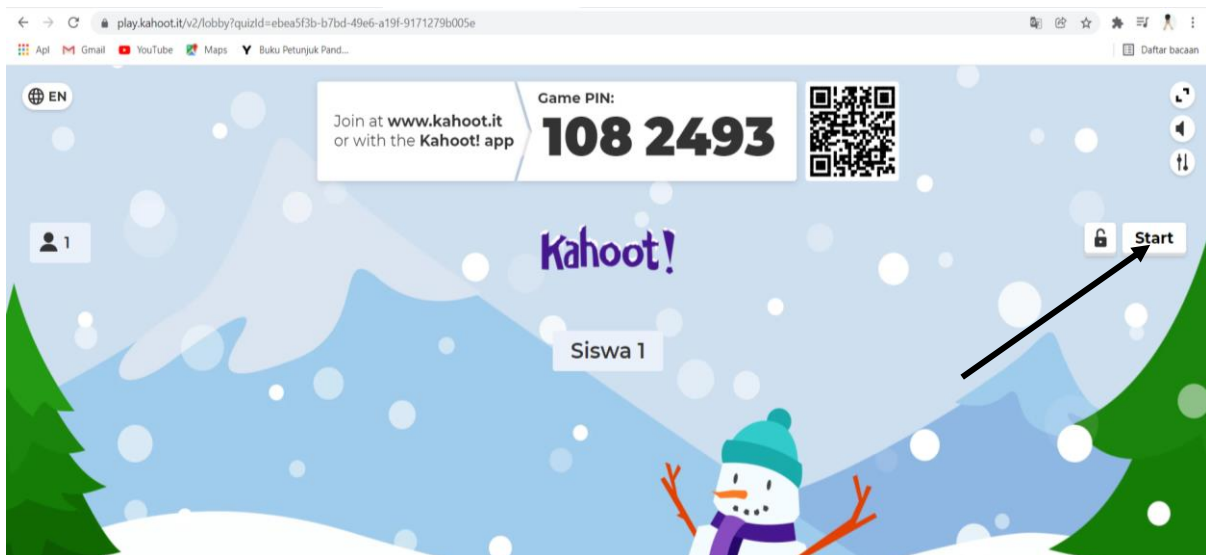
*Imam Riadi[1], Sunardi[2], M. Ihya A. Elfatiha[3)a], Ariful Aziz[4], and Amirul Mumin[5]*



**Figure 16.** Kahoot view on educator account to start quiz

4) After the educator starts the quiz by pressing the start button in Figure 16, then the quiz starts. The quiz interface can be seen in Figure 17.
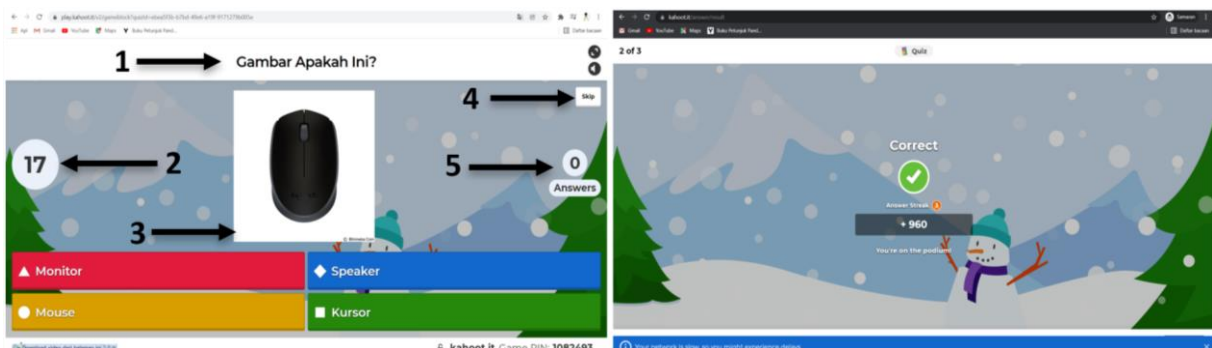


**Figure 17.** Kahoot view during quizzes

The descriptions in Figure 17 are as follows:
a. The question column in the picture is indicated by number 1.
b. The time given for each question will be displayed on the left centre of the monitor screen, in the figure shown by number 2.
c. If the educator enters a picture in the question, the picture will be displayed as shown by number 3.
d. To skip the question, in the picture shown by number 4.
e. To find out how many answers have been answered, then on the screen to the right of the centre of the monitor will display the answers that have been collected by students, which is indicated by number 5 in the picture.
5) If the answer has been completed as a whole it will appear on the monitor screen of educators and students which looks like in Figure 18.

*Imam Riadi[1], Sunardi[2], M. Ihya A. Elfatiha[3)a], Ariful Aziz[4], and Amirul Mumin[5]*
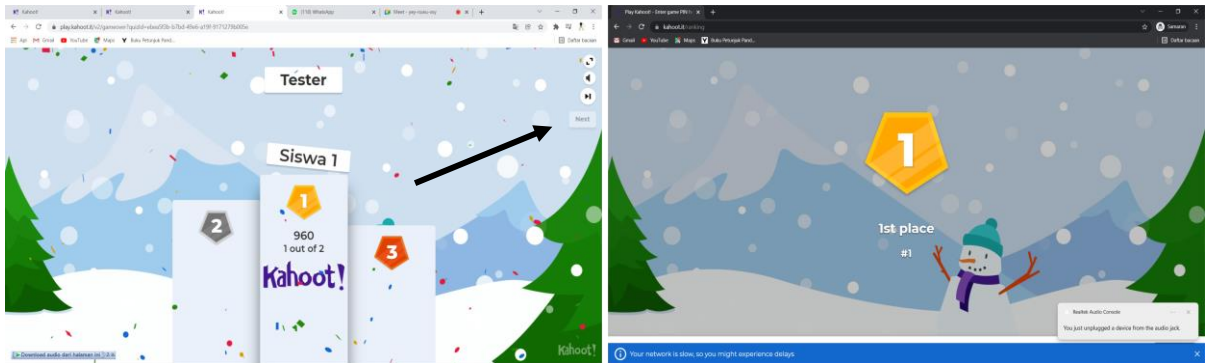
**Figure 18.** Kahoot display if the entire quiz series has been successfully completed

6) On the student display, after the ranking appears, it can be directly displayed close. Automatic grades are already recorded on the educator's account. As for educators, to evaluate quiz results, click next in Figure 18 then a new display will appear. Click view full report then select view report as shown in Figure 19.
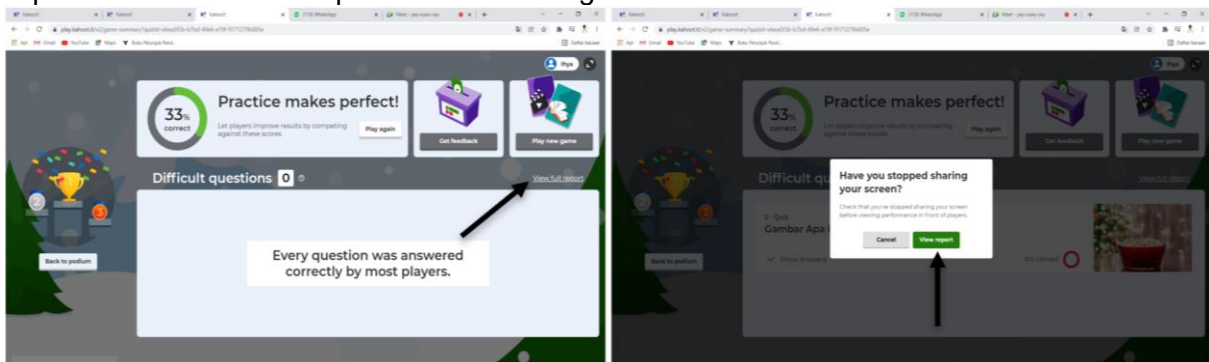


**Figure 19.** Steps to evaluate the results of filling out quizzes on kahoot

7) On view report, educators can display the results that have been filled in by students. The results can be obtained in the form of excel, pdf, direct print, and or view them directly on the html page.
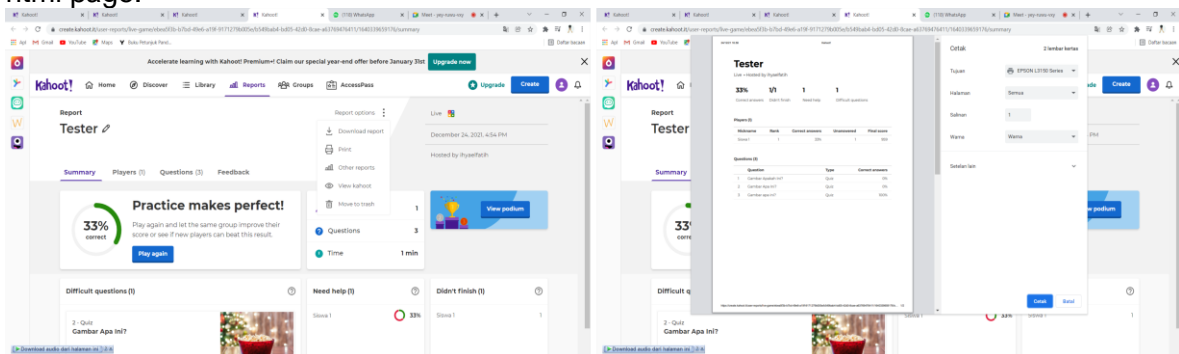


**Figure 20.** Display for getting quiz evaluation results on kahoot

The results of this community empowerment program after conducting a survey before and after the training obtained the following results:

1. That related to the experience of using Kahoot, it was found that of the 23 participants who filled out the survey, 80% claimed to have never used and had never heard of it before. platform Kahoot, 15% have been and are familiar with platform Kahoot, and 5% have accessed it but only as a participant (not creating quizzes, accounts, etc.). The results are shown through the graph in Figure 20.

Apakah anda pernah menggunakan Kahoot sebelumnya?

20 jawaban
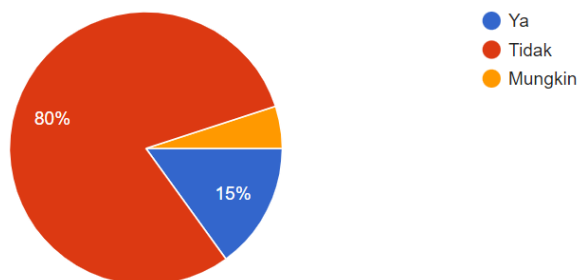


**Figure 20.** The results of the survey on the use of Kahoot

2. On the question of whether the results of the training increased the insight and ability of the participants who took part, it was found that 60% of the participants filling out the survey agreed that the participants' insight and ability regarding kahoot increased. The survey results are shown in Figure 21.

Pelatihan ini membuat kemampuan saya dalam kahoot meningkat

15 jawaban
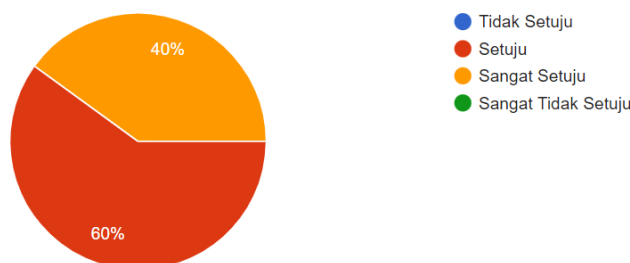


**Figure 21.** The results of the survey to increase insight and ability in using Kahoot

## CONCLUSIONS AND RECOMMENDATIONS

Kahoot as a web-based learning media designed like a game can be used to optimize, improve, and motivate students' independence and can be used to facilitate the evaluation process and variations in learning. Development on the cognitive intelligence side of students can be done with kahoot content that can be made to encourage students to explore each material being taught. Kahoot can be used not only for learning in the classroom, but also outside the classroom.

Based on the activities of the community empowerment program (PRODAMAT) that has been carried out by lecturers and students of the Master of Informatics Engineering Study Program at Ahmad Dahlan University which was carried out in Sutorejo Hamlet, Mulyorejo District, Surabaya City, East Java, it is hoped that it will be useful for improving the quality and quality of all parties.

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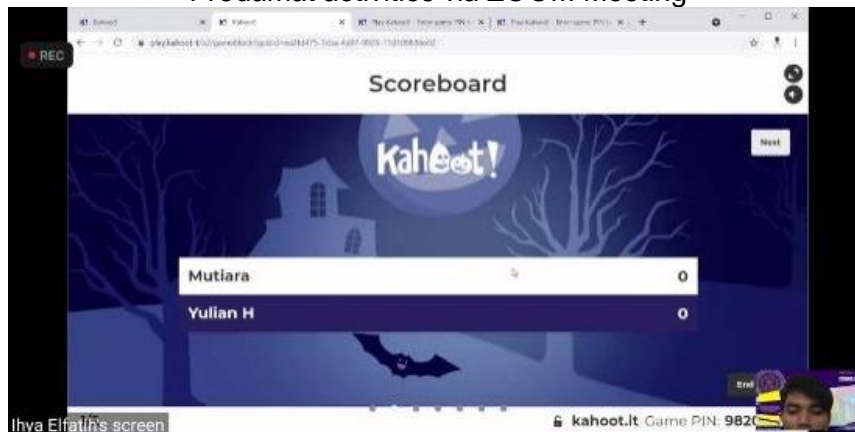
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**APPENDIX**

*Imam Riadi[1], Sunardi[2], M. Ihya A. Elfatiha[3)a], Ariful Aziz[4], and Amirul Mumin[5]*
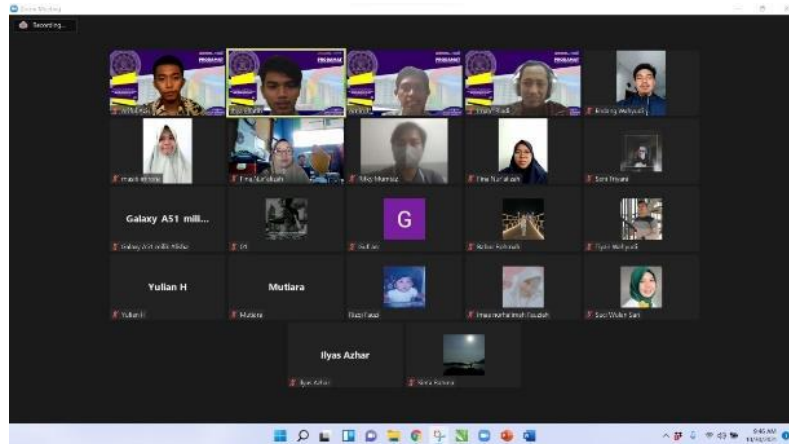
Prodamat activities via ZOOM Meeting



Presentation Kahoot Learning Games



Background MTI UAD Community Empowerment Program Activities