

# Perceptions of Using the Kahoot! Platform in the Evaluation of Sports and Health Physical Education Learning

Resty Gustiawati<sup>1(⋈)</sup>, Fahrudin<sup>1</sup>, Agung Susilo Yuda Irawan<sup>2</sup>, and Soffi Nurhalizza Utami<sup>1</sup>

Faculty of Teacher Training and Education, Singaperbangsa University Karawang, Jl. HS. Ronggo Waluyo, Puseurjaya, Teleukjambe Tim Ur, Karawang, West Java 41361, Indonesia

resty.gustiawati@fkip.unsika.ac.id

<sup>2</sup> Faculty of Computer Science, Singaperbangsa University Karawang, Jl. HS. Ronggo Waluyo, Puseurjaya, Teleukjambe Tim Ur, Karawang, West Java 41361, Indonesia

Abstract. This study aims to provide information on Perceptions of the Use of the Kahoot Platform in the Evaluation of Physical Education Sports and Health Learning for educators from evaluation problems encountered in learning Physical Education Sports and Health in schools. This study uses a quantitative research approach with survey methods and descriptive qualitative with interview guidelines. The population in this study were students of the Teaching and Education Faculty of Physical Education, Health and Recreation, Singaperbangsa University, Karawang who had conducted the Schooling Field Introduction Program, with the sample selection technique using purposive sampling. The instruments used in this study were in the form of non-tests, namely questionnaires and guidelines for perceptual interviews using the kahoot platform in the evaluation of Physical Education Sports and Health learning. The use of the kahoot application in educational evaluation learning is influenced by the high indicator 8, namely the perception that the kahoot platform application can be used as a learning evaluation tool by 84.6% and indicator 7, namely the perception of the kahoot platform application as a quiz in learning by 79.8% while the lowest perception is on indicator 5, namely the perception of the kahoot platform application having a competitive system advantage of 69.7%. Thus it can be concluded that the perception of using the kahoot platform in the evaluation of Physical Education Sports and Health learning is quite interesting for students.

**Keywords:** Learning Evaluation · Platform Kahoot · Physical Education

## 1 Introduction

The era of the Industrial Revolution 4.0 is currently showing increasingly rapid technological advances. 21st century skills also demand to be able to take advantage of information and communication technology [1]. Some examples of current advances

in the field of information technology which are very rapidly accompanied by digital technology, especially in social networking or social media, are known as the industrial age "industrial age" and also the knowledge mass "Knowledge Age" in this case all needs and knowledge are based on the skills proficiency and understanding to meet the needs of life [2]. This industrial revolution also occurred in the world of education, especially in Indonesia, which brought changes in the process of interaction between teachers, students and learning media [3]. Education at this time cannot be avoided from the use of technology that is increasingly developing, the use of technology in the learning process encourages students to be enthusiastic in terms of a variety of views from the visual side [4]. Technological advances in the world of education are not solely to increase existence, but in the use of this technology to support learning so that it is more efficient and maximizes utilization in terms of time and conditions [2]. Supported by marking (1) information that is available and can be accessed anywhere; (2) computing is getting faster; (3) automation that replaces routine work and (4) communication that can be done anywhere and anytime (Ministry of Education and Culture Research and Development) the use of technology in the learning process encourages students to be enthusiastic in terms of a variety of views from the visual side [4]. Technological advances in the world of education are not solely to increase existence, but in the use of this technology to support learning so that it is more efficient and maximizes utilization in terms of time and conditions [2]. Supported by marking (1) information that is available and can be accessed anywhere; (2) computing is getting faster; (3) automation that replaces routine work and (4) communication that can be done anywhere and anytime (Ministry of Education and Culture Research and Development) the use of technology in the learning process encourages students to be enthusiastic in terms of a variety of views from the visual side [4]. Technological advances in the world of education are not solely to increase existence, but in the use of this technology to support learning so that it is more efficient and maximizes utilization in terms of time and conditions [2]. Supported by marking (1) information that is available and can be accessed anywhere; (2) computing is getting faster; (3) automation that replaces routine work and (4) communication that can be done anywhere and anytime (Ministry of Education and Culture Research and Development) but in using this technology to support learning to be more efficient and maximize utilization in terms of time and conditions [2]. Supported by marking (1) information that is available and can be accessed anywhere; (2) computing is getting faster; (3) automation that replaces routine work and (4) communication that can be done anywhere and anytime (Ministry of Education and Culture Research and Development) but in using this technology to support learning to be more efficient and maximize utilization in terms of time and conditions [2]. Supported by marking (1) information that is available and can be accessed anywhere; (2) computing is getting faster; (3) automation that replaces routine work and (4) communication that can be done anywhere and anytime (Ministry of Education and Culture Research and Development).

In the 21st century focused on students to be able to apply and develop creativity, critical thinking, cooperation, problem solving, communication skills and character skills [2]. The rapid increase in the availability and affordability of interactive technologies such as the Kahoot Platform, is contributing to the adoption of games in science and education in terms of teaching to foster collaborative learning, exploration and discovery

[1]. Education is a must to be able to encourage individuals to improve their quality, to be able to know the success of a lesson as well as an evaluation process needed to know self-achievement during the learning process.

Evaluation is one of the activities to reflect and determine the success or failure of the learning process. Evaluation activities generally applied by teachers still use less efficient conventional methods through written tests [4]. The evaluation activity itself is a systematic process of collecting, analyzing, and interpreting information and then determines the level of student achievement of a learning objective [5]. In line with the development of the industrial revolution 4.0, the development of a participatory evaluation approach in learning can be carried out online. Described by Mei et al.

Based on observations and interviews conducted [1] students feel bored with the evaluation system which is monotonous and still conventional. In fact, in evaluating lecturers they still use the usual evaluation tools such as through written tests (pencil and paper tests), this causes students to be unmotivated and feel less challenged to answer questions in working on evaluation questions and has an impact on students' lack of enthusiasm in understanding and paying attention learning process. In addition, there is no evaluation system that is practical in learning, so an interesting and effective evaluation tool is needed so that the evaluation objectives are carried out without students feeling they are being assessed. Several studies have been conducted regarding the evaluation of e-learning users (distance learning).

Media Kahoot is a platform resulting from a joint project collaboration between the Norwegian University of Technology and Science with Johan Brand and Jamie Brooker as initiators. Kahoot is an online application that visually can develop and present problems in a "game-show" format. Kahoot! is a game-based learning platform that is used as a learning evaluation function, namely to review student knowledge, in formative assessments or as a quiz of traditional classroom activities, [7]. Kahoot is also an online media that contains free or unpaid questions that can support the evaluation process in a lesson [4] (Fig. 1).

The specialty of this platform can support the learning evaluation process in groups even though it can be used individually and must be connected via an internet network [8]. Another advantage of the kahoot platform is that the results of obtaining student answers can be displayed directly on the screen, so that students can see the achievement



Fig. 1. Kahoot Usage Options

of their understanding and as a measure of student learning outcomes [4]. Then the research results also show that the Kahoot! can be used effectively for assessment with the gamification method in lessons [9]. In addition to the lack of kahoot! also felt by some teachers who are afraid of the competitive game elements in Kahoot! worried that it can damage students' motivation to learn [10]. Disadvantages of Kahoots! also reinforced by the results of Wang's research (2015) which found that the use of Kahoot! (in one lecture session for one full semester) produces the effect of "eliminating" a small part of the classroom with positive dynamics that students do because of software engineering. Only 52% of students agree that Kahoot! providing increased positive and relevant communication with classmates on topic compared to 67% of first time users using the platform. But the shortage problem felt by this user has been identified by Kahoot! Staff. Through research into its use, as one of the main barriers for many people to start using this tool. (in one lecture session for one full semester) produces the effect of "eliminating" a small part of the classroom with positive dynamics that students do because of software engineering. Only 52% of students agree that Kahoot! providing increased positive and relevant communication with classmates on topic compared to 67% of first time users using the platform. But the shortage problem felt by this user has been identified by Kahoot! Staff. Through research into its use, as one of the main barriers for many people to start using this tool (in one lecture session for one full semester) produces the effect of "eliminating" a small part of the classroom with positive dynamics that students do because of software engineering. Only 52% of students agree that Kahoot! providing increased positive and relevant communication with classmates on topic compared to 67% of first time users using the platform. But the shortage problem felt by this user has been identified by Kahoot! Staff. Through research into its use, as one of the main barriers for many people to start using this tool. Providing increased positive and relevant communication with classmates on topic compared to 67% of first time users using the platform. But the shortage problem felt by this user has been identified by Kahoot! Staff. Through research into its use, as one of the main barriers for many people to start using this tool. Providing increased positive and relevant communication with classmates on topic compared to 67% of first time users using the platform. But the shortage problem felt by this user has been identified by Kahoot! Staff through research into its use, as one of the main barriers for many people to start using this tool.

The following is a display of questions/quizzes that are provided on the kahoot platform (Fig. 2).

This study aims to find out the perceptions of using the kahoot platform in the evaluation of sports and health physical education learning in schools in terms of the use of gadgets that are routine and updating in the implementation of participatory evaluations that support technological progress by developing innovations, ideas and ideas in unusual learning evaluations through kahoot platform.

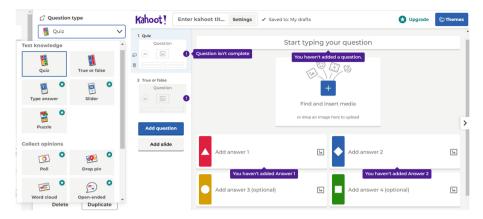


Fig. 2. Quiz Selection Display on Kahoot

# 2 Methods

This study uses a mix method, namely quantitative and qualitative methods in collecting information in conducting research. The research data collection used was in the form of a perception questionnaire of sports and health physical education students who had implemented the PLP program on the use of the kahoot platform in evaluating sports and health physical education learning. The qualitative approach used is in the form of interviews with respondents to find out more responses to the use of the kahoot platform.

The population in this study were students of the Faculty of Teaching and Education at Singaperbangsa University, Karawang, Physical Education, Health and Recreation who had participated in the Schooling Field Introduction Program, with purposive sampling based on certain predetermined criteria. The instruments used were questionnaires and interview lists regarding perceptions of using kahoot in evaluating learning in physical education, sports and health.

Perception questionnaire on the use of the kahoot platform in the evaluation of sports and health physical education learning, data collection was carried out by asking questions in the Google form that had been provided by the researcher, data analysis in the study used descriptive statistical methods with data analysis techniques using Respondent Achievement Level (TCR). The Respondent Achievement Level Test (TCR) is used to calculate the Respondent Achievement Level (TCR) value for each category from the indicator descriptive data [11]. The formula used is:

$$TCR = \frac{Rs}{n} \times 100\%$$

Information:

TCR = Level of Attainment of Respondents

Rs = Average score of respondents' answers

n =The score of the answer

The research data was analyzed using Microsoft Exel 2016 for windows. The research results obtained from the perception of using the kahoot platform are categorized into

No	Value intervals	Category
1	90–100	Very interesting
2	80–89	Interesting
3	65–79	Quite interesting
4	55–64	Less attractive

Table 1. TCR Scale Range

Source: [12]

4 categories, namely very high, high, medium and low. There are scoring categories in the data in the form of percentages, proportions and ratios, so conclusions can be drawn, adjusted accordingly problem his [12] (Table 1).

In addition, interview data were obtained through the formulation of questions prepared by researchers to explore students' perceptions of using the kahoot platform. The data analysis used is the Miles and Huberman analysis model. According to Miles and Huberman, there are three series of activities carried out in the data analysis which consist of, as follows:

- Data Reduction (data reduction), reducing data means summarizing, selecting things principal, focus on important things, look for themes and patterns and discard unnecessary ones.
- 2) Data Display (data presentation), data presentation, namely organizing data, arranging in a relationship pattern, so that it will be easier to understand.
- 3) Conclusion Drawing/Verification, namely drawing conclusions and verification. The initial conclusions put forward are temporary, and will change if strong evidence is found to support the next stage of data collection.

#### 3 Results

(1) Questionnaires are given to respondents after learning evaluation through the kahoot platform is carried out, the questionnaire is in the form of 10 questions with 4 choices in each question.

The 10 questions and their scores can be seen in the bar Fig. 3.

After analyzing the data above regarding the first indicator with the perception of the appearance of the kahoot platform application, it can be seen that as many as 53.2% of students stated that they were interested in this kahoot platform. While 16.1% said it was quite interesting and as many as 30.6% students said it was very interesting (Fig. 4).

After analyzing the data above regarding the second indicator with the display sound of the kahoot platform application as a game, it can be seen that as many as 69.4% of students stated that they were interested in this kahoot platform. While 16.1% said it was quite interesting and as many as 14.5% students said it was very interesting (Fig. 5).

After analyzing the data above regarding the third indicator with perceived understanding of using the kahoot platform application, it can be seen that as many as 65.5%

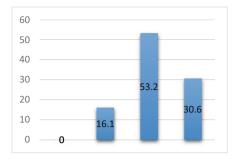
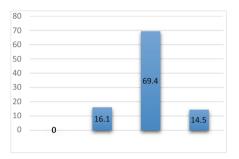


Fig. 3. Percentage of indicator 1 perception of the kahoot platform application display



**Fig. 4.** The percentage of indicator 2 is the perception of the display of the kahoot platform application as a game

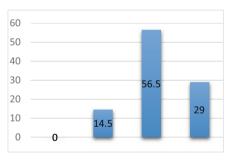
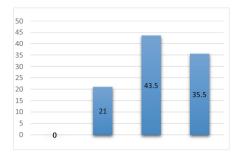


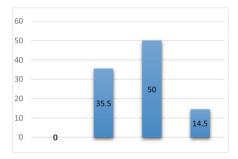
Fig. 5. Percentage of indicator 3 perception of understanding of using the kahoot platform application

of students stated that they were interested in this kahoot platform. While 14.5% said it was quite interesting and as many as 29% of students said it was very interesting (Fig. 6).

After analyzing the data above regarding the fourth indicator with the perception that the kahoot platform application facilitates the evaluation process in learning, it can be seen that as many as 43.5% of students stated that they were interested in this kahoot platform. While 21% said it was quite interesting and as many as 35.5% of students said it was very interesting (Fig. 7).



**Fig. 6.** Percentage of indicator 4 perception of the kahoot platform application facilitates the evaluation process in learning



**Fig. 7.** The percentage of indicator 5 is the perception that the kahoot platform application has competitive advantages

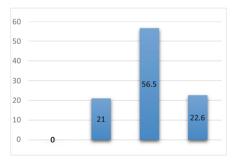
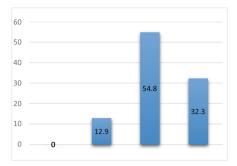


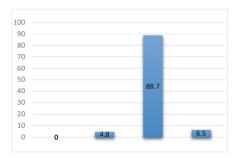
Fig. 8. Percentage of indicator 6 perceptions that the kahoot platform application has deficiencies

After analyzing the data above regarding the fifth indicator with the perception that the kahoot platform application has competitive advantages, it can be seen that as many as 50% of students expressed interest in the kahoot platform. While 35.5% said it was quite interesting and as many as 14.5% students said it was very interesting (Fig. 8).

After analyzing the data above regarding the sixth indicator with the perception that the kahoot platform application has deficiencies, it can be seen that as many as 56.5% of students stated that they had deficiencies from this kahoot platform. While 21% stated



**Fig. 9.** The percentage of indicator 7 perceptions of the kahoot platform application can be used in quizzes in learning



**Fig. 10.** The percentage of indicator 8 perceptions of the kahoot platform application can be used as a learning evaluation tool

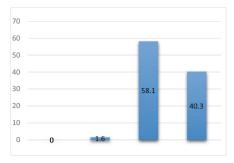
that they had enough drawbacks and as many as 22.6% of students stated that they really had deficiencies in the kahoot platform (Fig. 9).

After analyzing the data above regarding the seventh indicator with the perception that the kahoot platform application can be used as a quiz in learning, it can be seen that as many as 54.8% of students stated that they were interested in this kahoot platform. While 12.9% said it was quite interesting and as many as 32.3% students said it was very interesting (Fig. 10).

After analyzing the data above regarding the eighth indicator with the perception that the kahoot platform application can be used as a learning evaluation tool, it can be seen that as many as 88.7% of students agreed, 4.8% stated that they quite agreed and as many as 6.5% of students stated that they strongly agreed that the platform kahoot can be used as a learning evaluation tool (Fig. 11).

After analyzing the data above regarding the ninth indicator with the perception that the kahoot platform application can be used by students in learning evaluation, it can be seen that as many as 58.1% of students agreed, 1.6% stated that they quite agreed and as many as 6.5% of students stated that they strongly agreed (Fig. 12).

After analyzing the data above regarding the tenth indicator with the perception that the kahoot platform application is suitable for learning evaluation media, it can be seen



**Fig. 11.** Percentage of indicators 9 perceptions of using the kahoot platform for student use in learning evaluations

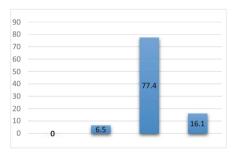


Fig. 12. Percentage of indicators 10 perceptions of using the kahoot platform are suitable for learning evaluation media

that as many as 58.1% of students stated that it was appropriate, 1.6% stated that it was quite suitable and as many as 6.5% of students stated that it was very suitable (Table 2).

Based on this table, it can be concluded that overall the perception of using the kahoot platform in learning evaluation of physical education, sports and health has an average score of 77.3%, the perception of using the kahoot platform is included in the quite interesting category.

When depicted in the form of a bar chart, the results are as follows (Fig. 13):

Based on the bar chart above, it can be concluded that the perception of the use of the kahoot application in physical education evaluation learning is influenced by the high indicator 8, namely the perception of the kahoot platform application that can be used as a learning evaluation tool by 84.6% and indicator 7, namely the perception of the kahoot platform application that can be used as a quiz in learning by 79.8% while the lowest perception is in indicator 5, namely the perception of the kahoot platform application having a competitive system advantage of 69.7%, it can be concluded that the perception of using kahoot is quite interesting in learning.

(2) Interview data collection was carried out to find out the perception of the use of the kahoot platform specifically, taken through an interview instrument which was formulated in the question items by the researcher as a guideline for data collection carried out. The results of the interviews were conducted with 10 respondents who had

No	Question	N	score	Means	(TCR)%	Category
1	Indicator 1	62	195	3,15	78.62903	Quite interesting
2	Indicator 2	62	185	2.98	74.59677	Quite interesting
3	Indicator 3	62	195	3,15	78.62903	Quite interesting
4	Indicator 4	62	195	3,15	78.62903	Quite interesting
5	Indicator 5	62	173	2.79	69.75806	Quite interesting
6	Indicators 6	62	187	3.02	75.40323	Quite interesting
7	Indicators 7	62	198	3,19	79.83871	Quite interesting
8	Indicators 8	62	187	3.02	75.40323	Quite interesting
9	Indicators 9	62	210	3.39	84.67742	Interesting
10	Indicators 10	62	192	3,1	77.41935	Quite interesting
Score			191.7	3,094	77.29839	Quite interesting

Table 2. Descriptive Perception use platforms Kahoot! In learning Evaluation education Jasmanai

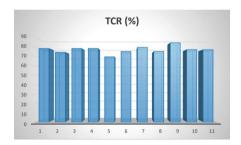


Fig. 13. Indicator percentage and overall (TCR)

tried using learning evaluation through the kahoot platform, the results of the interviews were as follows (Table 3):

From the results of the interview above, it can be concluded from all respondents that the appearance of the kahoot platform is very interesting and effective for the evaluation process as well as in learning, this platform has attractiveness in terms of appearance like playing games in the process of using it. Apart from that, in using other features this platform contains a choice of various types of quizzes, images and videos and can make it easier for users to access through various sources that can be connected directly to the kahoot platform and the results of obtaining student answers can be directly displayed on the screen.

**Table 3.** Interview Results

Respondents	Interview result
R 1	Regarding the kahoot application feature, it has advantages and disadvantages, the advantage is that this feature makes it easier for a teacher to evaluate learning outcomes and it is more interesting for students because using this feature students are not bored so it adds enthusiasm because of this kahoot application, the drawbacks include that it is quite difficult for the first person the next time we use this, we should be able to explain more about the use of this kahoot and how to use it so that students don't find it difficult to use it.
R 2	Kahoot is a good platform in the learning process especially in situations like this, besides that the easy and simple way of operation allows people to use this application. In carrying out learning evaluations this application can be used properly because it can add pictures and videos so that the material for each question can be clearer. Hopefully this application can be further developed and useful in the learning process
R 3	The existence of this kahoot platform can make it easier for educators to carry out learning and tests/exams because in this kahoot application there are various choices or ways for educators to do learning, and this application does not make students bored in my opinion because of the way this application is packaged like playing games. The drawback may be that not all features can be used for free. But overall this application is very good.
R 4	My personal opinion about the kahoot platform is that it is really very effective and good, in it we can not only do assignments but can also play games with questions that have been made, moreover there is a level feature that makes a person more enthusiastic about working on questions, in making questions it is quite easy and practical, it can be shared with any media quickly. There are many other very interesting features on this one platform. I hope that in the future it will be improved and better, maybe in the next 10 years the world of learning will be easier and practical with many today's applications as a guide like kahoot.
R 5	Learning to use the kahoot application is very interesting, compared to the Googleform that I used to use before. Because in this kahoot we can add photos and videos to further clarify the questions given, there is even an insert of background music when we work on the questions. Using this application is also easy, because it looks easy to understand. Indeed, the first time we have to study the existing features first, but after learning it is very easy. This Kahoot looks more attractive and interactive because there are many colors that make it more alive. The method of working on the quiz given is also quite challenging because there is a predetermined time limit when working on each question correctly to get points.

(continued)

**Table 3.** (continued)

Respondents	Interview result
R 6	It's very interesting and fun with the various instruments in the kahoot application, filling out quizzes/questions doesn't use a piece of paper anymore, so it's not boring with monotony like videos, clear pictures make questions easier to answer, very helpful in the learning process, but the drawback is that if you are going to make questions and answers the text is still limited, you can't get too much and you have to spend money if you want to make the questions more varied and require an internet connection. But in terms of assessment it is easier because the results will come out immediately after the questions are done. It is very helpful in the learning process in evaluating students quickly.
R 7	Kahoot is very fun because it has quite a lot of features that are not boring. Not just quizzes but in the Kahoto apk there is also true or false, can provide pictures, even videos, so don't worry about being out of date. At the beginning of making the questions, it was indeed complicated and difficult, but when you already know how, it's actually very easy and fun. Furthermore, this Kahoot apk is limited in processing time so students remain disciplined in their work.
R 8	The Kahoot app! This has an advantage and a disadvantage. The advantage in this application is that it can create questions with various criteria and helps in conducting online learning. The weakness lies in the part after filling in the good questions, the problem is that it often loads and likes are not saved, especially for cellphone users.
R 9	The Kahoot app! this is a good application to use for learning, especially during a pandemic like this which requires schools to conduct teaching and learning activities online. The Kahoot app! this is quite interesting for students rather than giving multiple choice questions that just like that. Unfortunately, in using this application, we are required to have an adequate internet signal.
R 10	Using the Kahoot! Very helpful in making learning questions that are shaped like playing games with the sound of songs in working on these questions and also very easy, it's just that in making questions and answers they are limited by the number of words which makes the use of kahoot not optimal in making questions and answers that are quite long in using the kahoot application.

The kahoot platform can also be an updated application in the process of evaluating physical education learning because it is not monotonous from the evaluation process in general and follows the up-to-date approach in the 4.0 era in the current learning process. The use of the kahoot platform is suitable for use in learning as an evaluation support application for students and students in various types of learning based on the use of internet networks through gadgets and laptops.

#### 4 Discussion

Evaluation of the learning process is very important to determine the ability and quality of each student. Evaluation of learning has the aim of knowing the effectiveness and efficiency of learning outcomes. So that with the evaluation of learning the lecturer will know where the deficiencies lie in terms of objectives, material, methods, media, learning resources, environment and the assessment system itself [13].

The participatory evaluation approach itself is the involvement of students in the learning evaluation process, starting from planning and creating, then carrying out evaluations, and being involved in the assessing process. Learners are actively involved in determining all the learning evaluation processes that have been agreed upon. This can be done through the use of the kahoot platform which provides participatory involvement to students with question planning problems/andemict with the chosen type or template, which is made to be done by friends.

The kahoot application contains questions in a game-show display that can be used for free or without payment. Display questions in this application can be equipped with pictures and videos that can clarify the problem. The operation of the kahoot application is very easy to do, kahoot can be accessed via an application or website, making it practical to use. The evaluation system using the kahoot application allows educators to immediately find out student learning outcomes, because in the kahoot application the points obtained by students can be immediately displayed after students answer questions [4]. The learning evaluation process can be collaborated with learning resources that are already widely available on the internet. Some equipment must be prepared before the learning evaluation process is carried out using kahoot in order to obtain optimal evaluation interactions, namely: (a) Smartphone, tablet or laptop and (b) a strong and reliable internet connection.

After the prerequisites for the equipment above have been met, the next process can be carried out, which is the stage of making a quiz on kahoot. To gain learning skills and understanding, students need to be encouraged to generate new ideas, evaluate and analyze the material being taught and be able to apply what they have learned. This can be achieved by providing opportunities for students to be more actively involved in online interactive activities [14].

Learners can be actively involved in carrying out, and assessing the evaluation of physical education learning. In the process of teaching and learning students' problems are the ones that become your concern. Whatever activities educators do are none other than for an environmental effort that is created to please all students and can arouse enthusiasm in student learning [15].

Obstacles faced by researchers during an epidemic like this, the difficulty of coordination or direct observation, so that research results rely on virtual and Google form in collecting data. By using the kahoot application, it is hoped that in the learning evaluation process it can maintain students' ongoing motivation in learning, so as to create a learning atmosphere that is more interesting, fun, and not boring [16].

## 5 Conclusion

Thus it can be concluded, based on the perception of the use of the kahoot platform in the implementation of learning evaluations in the implementation of the evaluation of Physical Education Sports and Health learning that has been obtained through questionnaire data and interviews conducted regarding perceptions of the use of the kahoot platform

as a learning evaluation tool. Thus it can be concluded that the perception of using the kahoot platform in the evaluation of Physical Education Sports and Health learning is quite interesting for students.

**Acknowledgments.** We would like to thank the Health and Recreation Physical Education Study Program, the Teaching and Education Faculty and the Research and Community Service Institute, Singaperbangsa University, Karawang, which have supported and funded this research.

# References

- 1. F. Daryanes, D. Ririen, The Effectiveness of Using the Kahoot Application as an Evaluation Tool for Students, J.Nat. sci. Integr., 3(2) (2020), 172
- 2. R. H Mardhiyah, S. N. F Aldriani, F. Chitta, M.R. Zulfikar The Importance of Learning Skills in the 21st Century as Demands in Human Resource Development 12(1) (2021) 29–40.
- 3. M. Aspi, K. South K., Teacher Professionals in Facing the Challenges of Educational Technology Development, 2(1) (2022) 64–73.
- N. A. Damayanti, R. M. Dewi, Development of the Kahoot Application as a Media for Evaluation of Student Learning Outcomes, EDUCATIVE J. Educator Science. 3(4) (2021) 1647–1659.
- E. Kurniasih, D. Supriadi, A. O. Solihin, Evaluation of Physical Education Learning Programs During the Covid 19 Pandemic, J. Sports Physical Education Master 2(1) (2021) 127–136.
- 6. D. Tautz, D. Sprenger, Evaluation of four digital tools and their perceived impact on active learning, repetition and feedback in a large university class, Comput. educ., (2021).
- 7. A. I. Wang, R. Tahir, The Effect of using Kahoot! for learning, 2021
- A. Putri, M.. Muzzaki, Implementation of kahoot as a digital game-based learning media in facing the industrial revolution era 4.0, Seminar proceedings. Nas. Univ. Holy Muria, Thing, (2019) 1–7.
- 9. H. Bicen,, S. Kocakoyun, Perception of Students for Gamification Approach: Kahoot as a Case Study, 2020
- 10. E. Zarzycka-Piskorz, Kahoot it or not? Can games be motivating learning grammar? Teaching English with Technology 16 (3) (2016) 17–36.
- 11. E. Sari, Puspita, Sukardi, E. Tasfir, Ambiyar, Optimizing the use of E-learning with the Delone and McClean models 4(2) (2020).
- 12. W. B. Santoso, K. Hariyadi, Development of Badaspa Swing Goal Media in Football Learning for Class V Madrasah Ibtidaiyah (Mi) Sugihan, J. Kejaora (Physical Health and Sports) 5(1) (2020) 57–65.
- 13. T. N. Azis, N. M. Shalihah, Development of Google Form-Based Learning Evaluation, Tawazun J. Educator. Islam 13(1) (2020) 1–54.
- 14. R. Andari, Utilization of Educational Game-Based Learning Media Kahoot! In Physics Learning, ORBITA J. Studies, Inov. and Apps. Educator. Fis. 6(1) (2020) 135.
- 15. A. C. Bunyamin, D. R. Juita, N. Syalsiah, Using Kahoot as a Game-Based Learning Media as a Form of Learning Variation, Gunahumas 3(1) (2020) 43–50.
- 16. D. Hartanti, Increasing student motivation with interactive learning media based on hypermedia kahoot games, Increase. motive. student learning with the interactive learning media of the Berbas kahoot game, Hypermedia 1 (1) (2019) 78–85.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

