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## Development of a Kahoot-Based Evaluation Tool to Increase Learning Motivation of X IPS Students of SMAN 1 Blega Bangkalan

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### ABSTRACT

This study is a research on product development of learning evaluation media based on Kahoot Social Studies lesson management material in class X SMAN 1 Blega Bangkalan. This study aims to (1) determine the media evaluation tool based on kahoot learning in class X student management materials. (2) Knowing the media motivation of Kahoot-based learning evaluation tool on management material in class X (3) Knowing the improvement of student X's learning on management material by using kahoot. This development research was conducted using the ADDIE model which consisted of several stages, namely analysis, design, development, implementation and evaluation. Based on this research, for the assessment of material experts, media experts, field practice (teachers) the percentage score of the material aspect is 72% with the (adequate) category, the media aspect is 80% with the (adequate) category, the field practice (teacher) aspect of 100% with the category (Very Eligible). Based on the response of students' learning motivation, it was initially increased by 1850 after using the learning evaluation tool media through kahoot by 2211, experiencing an increase in the number of 361.

## 1. Introduction

Education is one thing that is very important because it can affect the development of science and technology which directly affects the activity or learning process and achievement in motivating students. Therefore it is necessary to prepare human resources (HR) to have the ability to compete in the world of education (Septiani, 2020). Therefore we need a way how to improve the quality of schools that are able to make students' learning motivation and all of this aims for students to be able to participate in following the learning process delivered by

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the teacher. The problem that often occurs in the world of education is the decline in the level of student learning motivation.

One of the triggers that affect the effectiveness of learning in schools is the application of learning support media and appropriate evaluation tools. (Nuriansyah, 2020). The problem that often occurs in the world of education is the decline in the level of student learning motivation. This can be seen from the activities of students in the teaching and learning process, they tend to be passive and just accept it. The method that is often used by teachers such as the lecture method or what is commonly called or known as conventional learning methods in economics learning is actually no longer a problem, but if this method is used continuously and there is no change, such as using variations in the learning process, for example using media. that can help the learning process will cause other problems. Using media during the learning process can be one of the external factors that can support students' success in the learning process (Mariatun, 2021).

Evaluation is one of the important things of the learning system in implementing which cannot be solved by teaching and learning activities (Febriana, 2021). This evaluation is one part of the very important stage of the learning system to be implemented. For this reason, educators know that students can measure and determine the level of learning understanding they have achieved by understanding the material presented by the teacher. The existence of this evaluation can help teachers to improve the quality of teaching in learning in the future. So that it can help students or students to find out the level of understanding in the material that has been conveyed by the teacher. To improve the ability of students, therefore, it can provide elements that encourage students to be more diligent in learning, namely by using different evaluation system tools so that they can open increasingly critical thinking patterns and new innovations for economic learning are of interest to students (Mulyani, 2021).

This assessment system helps teachers improve the quality of education in future learning, so that they can help students and teaching staff, improve the performance of institutions, be able to improve the quality of education facilities and infrastructure (Mardapi, 2019:109). To improve the ability of students, therefore, it can provide elements that encourage students to learn more enthusiastically using various assessment system tools. (Ismail, 2017). Therefore, this evaluation aims to collect learning documentation facts from students. So that it can be collected which will later help teachers in improving teaching and learning planning programs and it can be concluded that it is very important to evaluate learning.

Learning media is a tool used by teachers in the process of learning activities. Learning media is one of the important tools used in teaching and learning as a teacher's tool in teaching, in this millennial era, education requires students to be more active and creative in teaching and learning so that students have an understanding of the material presented (Khotimah, 2021). The importance of

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using learning media is to stimulate student interest and better understand learning materials by providing media (Mariatun, 2021).

Technology is a whole method that rationally leads and has the characteristics of efficiency in every human activity. This means that the development of science and technology is increasingly experiencing very high progress (Syahputra, 2016). The Kahoot application can make it easier for teachers to evaluate student learning (Rofiyati, 2017). Therefore technology can make learning media very interesting by utilizing learning applications that make it easier for teachers to convey material to students so that it has a positive impact on economic material. Kahoot is an alternative to various choices of interactive learning media that can make the learning process fun and not boring for both students and teachers (Hidayah, 2019). Kahoot is an application that plays quizzes in the form of learning test questions that can be developed and can be called a "game" format for awarding points will be given to those who answer correctly and students who are involved in the game Kahoot application will have their names listed on the player list (Dewi, 2018 ).

Based on observations made by researchers at SMAN 1 Blega Bangkalan, a kahoot-based evaluation tool has never been available as an evaluation tool for social studies student learning. This allows for the development of a Kahoot-based evaluation tool. It is hoped that this evaluation tool can increase students' learning motivation in economics subjects. The purpose of this development is to develop an evaluation tool using the kahoot application for class X IPS SMAN 1 Blega Bangkalan, determine the feasibility of developing kahoot media as an evaluation tool for class X IPS SMAN 1 Blega Bangkalan students and find out the use of kahoot media as an evaluation tool using the kahoot application. can increase the learning motivation of class X IPS students of SMAN 1 Blega Bangkalan. This is supported by students' statements regarding the results of the questionnaire, this shows that they are more motivated to learn to use Kahoot-based evaluation tools.

## **2. Methodology**

### ***Research Type and Design***

That this type of research used is a research and development method or can be called research and development that is used to produce certain products, and can test the effectiveness of these products. The research model used in this study is a research and development model developed by Robert Maribe Branch ADDIE analysis, design, development, implementation, evaluation (Sugiono, 2017). The main purpose of this development model is to design and develop an efficient and effective product.

To get these products, requires research that is a needs analysis to test the effectiveness of certain products. So that it can function in society at large, therefore research is needed to test the effectiveness of these products. So research and development is longitudinal (gradually can be multiple years). Based on the

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stages described above, it can be explained in detail to make it easier to understand, namely as follows:

### ***Analysis***

At the analysis stage, there are two stages, namely performance analysis and needs analysis. At the performance analysis stage, to find out the problems faced by the school related to the evaluation of school learning that has been used so far, then provide solutions by improving or developing learning evaluation tools. While the needs analysis stage is to determine the evaluation tools needed by students to improve learning understanding and be able to improve student achievement. The next technique is to make (KD) basic competencies, planning indicators and learning objectives. The next step is to develop a learning evaluation tool that is in accordance with basic competencies (KD) and indicators of learning objectives.

### ***Design***

At this design stage is to design an evaluation tool in terms of design as well as in terms of material. So as to be able to develop the evaluation tool. Therefore, kahoota is one of the educational-based interactive games in which there are several icons or features to be developed. One of them is a quiz icon where users can create quizzes using kahoot for learning so that learning becomes interesting and not boring.

### ***Development***

In the stage of developing an evaluation tool based on planning from the start, developing the kahoot application as an evaluation tool for economic learning, and reviewing the evaluation tool by validating the learning evaluation tool by a team of evaluation and media experts, material experts, and economics subject teachers. So that the learning evaluation tool is in accordance with the suggestions and input from a team of evaluation tools and media experts, material experts, from economics subject teachers. In order to get a comparison of the initial evaluation and evaluation after revision.

### ***Implementation***

At this stage, implementing learning evaluation tools in the teaching and learning process. By conducting trials to determine the validity of the items, the reliability of the items, the difficulty and the power of discrimination. For the initial trial stage, class X students were carried out. And to find out the shortcomings of the product as a reference for product revision before the field test was carried out.

### ***Evaluation***

In the evaluation stage, product revisions are carried out based on assessments and input from a team of evaluation tools or media experts, material experts and

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economics subject teachers. As well as the response of students after using or trying the product.

### ***Research Time and Place***

This research was conducted in class X IPS SMAN 1 Blega Bangkalan. Jalan Raya Blega, Rosep, Kec. Blega, Bangkalan Regency, East Java 69174.

### ***Test Subject***

This study carried out field observations, made a media evaluation tool for kahoot-based learning. To test the feasibility of the product by means of validation by experts on the class X IPS test subject at SMAN 1 Blega Bangkalan.

### ***Data Type***

The type of data used in this study is balanced with the information obtained and the objectives of this study. The information that has been obtained is used as a material for consideration in developing the product. So that the resulting product is valid and practical when used. The types of data used in the researcher are as follows:

- 1) Quantitative data, this data is obtained from the results of the validation instrument assessment by media experts, material experts and economics subject teachers, and questionnaire respondents from students.
- 2) Qualitative data, this data is in the form of information obtained through interviews with students, the results of interviews related to learning evaluation tools.

### ***Research Instruments***

In this study using data collection instruments in the form of observations, interviews and questionnaires or questionnaires. And for the instruments used to collect data in this assessment, there are four, namely, material validation sheets, media, social studies learning field practitioners, and student responses.

### ***Data Analysis Techniques***

This data analysis technique uses quantitative and qualitative data analysis. For qualitative data, it is obtained from validator input at the validation stage, and input from media experts or evaluation tools and material experts. While quantitative data is obtained from product development that has been made in the form of an evaluation tool based on the Kahoot application. The data used is statistical testing. In this way, it is expected to be able to understand the following data as a basis for revision of the developed product.

Can be explained by the steps of qualitative data analysis, quantitative analysis, student responses and student motivation. Determination of the validation score

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using a Likert scale with a scale of four (Sugiono, 2016). The results of the motivation questionnaire scale assessment can be seen in Table 1 as follows:

Table 1. Criteria for Assessing the Motivational Questionnaire Scale

Score	Criteria
4	Strongly agree
3	Agree
2	Don't agree
1	Strongly disagree

For the next step, each item is calculated using the formula, namely:

$$\% \text{ learning motivation score} = \frac{\text{learning motivation score}}{\text{maximal score}} \times 100\%$$

### 3. Results and Discussion

The research data are validity, student responses and student learning motivation after using the Kahoot-based evaluation tool. The development of kahoot-based evaluation media tools can increase motivation starting from the analysis of student needs. for a total of 30 students. From the observations, it can be seen that teachers use evaluation tools in the form of conventional or student textbooks so they are less enthusiastic about working on the questions given to students. Even students think that evaluation tools will be more interesting and interested in the existence of evaluation tools media with innovative and creative renewal models. The kahoot-based learning evaluation tool media can be the right learning evaluation tool media for each material. The kahoot evaluation tool media presents interesting icons or features so that students can more easily and understand each material that has been delivered and students feel happier if the media tool evaluation using kahoot, so that students' learning motivation will increase. The design of the Kahoot-based evaluation tool can be seen in (figure 1) as follows:

The media assessment of the Kahoot-based learning evaluation tool cannot be said to be feasible to use if it has not been assessed by media experts, material experts and field practitioners. Media experts, material experts and field practitioners (teachers and students) each assessed each aspect of the media assessment questionnaire with a minimum of a proper category. The results of the media feasibility assessment of the Kahoot-based learning evaluation tool by material experts, media experts and field practitioners and students. the explanation is as in Figure 1.

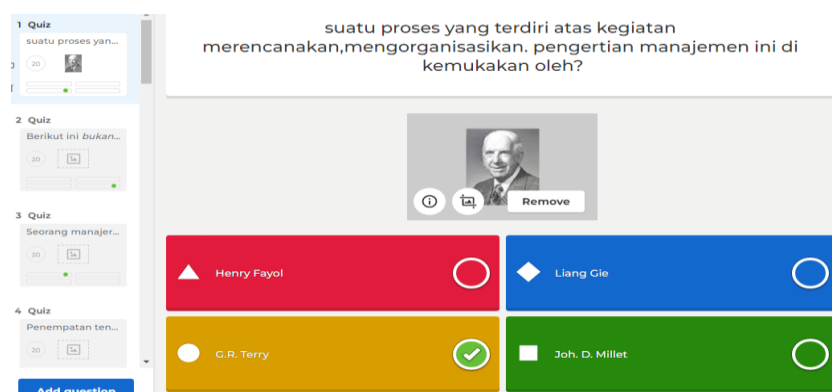


Figure 1. The Display Design of the Kahoot-Based Evaluation Tool

Furthermore (Figure 2) shows the final results of student achievement scores after evaluating learning using a kahoot-based evaluation tool are as follows:

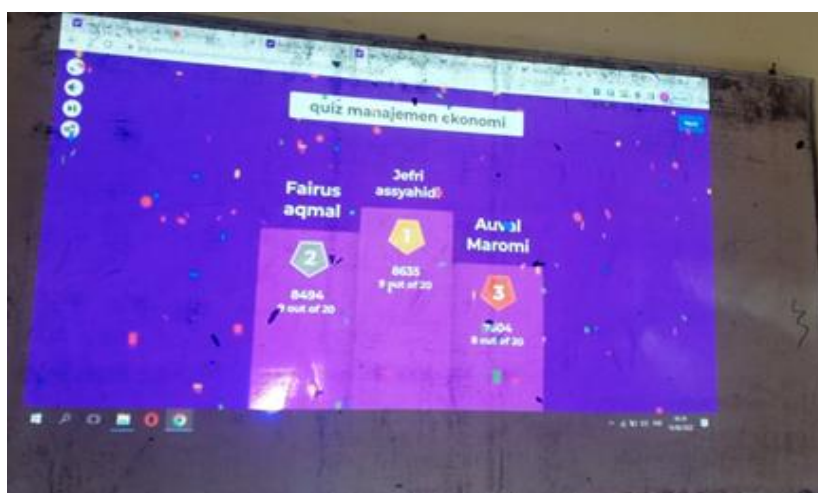


Figure 2. The Results of The Highest Score of Students

### ***Material Expert Validation***

The results of the material feasibility assessment can be seen in Table 2 as follows:

Table 2. Material Expert's Assessment of the Kahoot-Based Evaluation Tool

No.	Aspects of assessment	Number of items	Score	Presentation Results	Category
1	Theory	18	52	72%	Worthy

The material expert's assessment of the learning media of the Kahoot-based evaluation tool by the material expert was carried out to determine the validity of the material contained in the questions. For material expert validation there is an assessment of 4 aspects consisting of presentation of questions according to KD and indicators, concept coherence, clarity of presentation of questions, and can be

used individually. Equation of question categories according to material, pictures, as an effective and efficient kahoot-based evaluation tool and student involvement.

So that the average value of the percentage is 72% with the "Eligible" category according to Table 1. So it can be concluded that the media for developing Kahoot-based evaluation tools is feasible to be used as a support for economic teaching and learning activities.

### ***Media Expert Validation***

The results of the media feasibility assessment can be seen in Table 3 are as follows:

Table 3. Media Expert's Assessment of Kahoot-Based Evaluation Tools

No.	Aspects of assessment	Number of items	Score	Presentation Results	Category
1	Media presentation	20	64	80%	Worthy

The assessments are the continuity of media concepts, the clarity of user tutorials, the clarity of the display of questions, the clarity of the display of points obtained by students, the display of answers, and the assessment of the design of the media content that is displayed, creative and dynamic, the menu features in the quiz are easy to understand and the effectiveness and practicality of use. as an evaluation tool. So that there is an average percentage value of 80% with the "Eligible" category according to Table 2. So it can be concluded that the development of a kahoot-based evaluation tool is feasible to be used as a support for economic teaching and learning activities.

### ***Validation of Field Practitioners (teachers)***

The results of the media feasibility assessment from field practitioners can be seen in Table 4 as follows:

Table 4. Field Practitioners' Assessment of the Kahoot-Based Evaluation Tool

No.	Aspects of assessment	Number of items	Score	Presentation Results	Category
1	The suitability of the material in the evaluation tool	16	64	100%	Very Worthy

Material expert assessment of the learning media of the Kahoot-based evaluation tool. Validation for field practitioners consists of several aspects of the assessment, namely the suitability of the material with KD and indicators, clarity of material on the evaluation tool media, design of evaluation tools, clarity of questions presented to students, and increased student motivation. So that there is an average percentage value of 100% in the "Very Eligible" category. In accordance with Table 3. It shows that the kahoot-based learning media is feasible



to use. It can be concluded that the development of a Kahoot-based evaluation tool can be used to determine the understanding of the material that has been delivered and increase student learning motivation.

### ***Learning Motivation Results***

To find out that the Kahoot-based evaluation tool media can increase students' learning motivation, data on early student learning motivation and late learning motivation data are used. The initial data was obtained before using the Kahoot-based evaluation tool media. Then the data was finally obtained after using the Kahoot-based learning evaluation tool media. According to the data tabulation on the questionnaire, it is known that the initial motivation score of 1850 then increased by 361 to 2211, meaning that students' learning motivation before using the Kahoot-based learning evaluation tool and after experiencing an increase. This Kahoot-based evaluation tool media can increase students' learning motivation with good improvement category. This is influenced by Kahoot which is a new evaluation tool for students. So that this media can attract students' interest to learn.

The measurement of the increase in students' learning motivation was carried out after the kahoot-based evaluation tool media was found to be feasible to use. To see students' learning motivation seen from the results of the measurement of initial and final motivation using a Likert scale. It can be seen the score of early learning motivation and final learning motivation score in Table 5.

Table 5. Scores of early learning motivation and final learning motivation scores

<b>Early Learning Motivation Questionnaire</b>	<b>Final Learning Motivation Questionnaire</b>
1850	2211

Source: Development data processed by researchers

The feasibility of the Kahoot-based evaluation tool media can be seen from the results through the validator experts determined by the researchers consisting of material experts, media experts, and field practitioners (teachers). The results of the assessment for the feasibility of the Kahoot-based evaluation tool as a whole have been assessed by experts and field practitioners with appropriate categories. Based on students' learning motivation before and after experiencing an increase in 361. This kahoot-based evaluation tool media can increase students' learning motivation with a good improvement category. This can affect kahoot as a new learning evaluation tool for students so that this media can attract students' interest in learning.

## **4. Conclusion**

Based on the results of research development and discussion, it can be concluded that the results of the assessment by material experts, media expert assessments of kahoot-based learning evaluation tools from material aspects are in the

appropriate category. Meanwhile, the assessment of media experts from the kahoot design aspect is in the proper category. Assessments from field practitioners (teachers) assess the media from the material aspect, usability aspect, and presentation aspect in the very feasible category. These findings require a teacher to be more active in improving their ability to use only kahoot-based evaluation tools, but other evaluation tools must also be mastered. So that the media can attract students' interest in learning and can measure how well they understand the material when teaching and learning in the classroom.

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