

Development of E-Earning Learning Media Based on the Kahoot Application in Geography Subjects

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Abstract

Learning media is a very important component of learning resources in the learning process. This research aims to develop e-learning media based on the Kahoot application in geography subjects regarding rural and urban spatial interactions. This research uses the ADDIE development research method which consists of five stages, namely the analysis stage, the design stage, the development stage, the implementation stage, and the evaluation stage. The research results showed that the media expert validation score was 85%, the material expert validation score was 83%, the teacher validation score was 85%, and the average student response score was 97.81%. The scores resulting from validation by experts and the student response scores show that the Kahoot-based Elearning learning media in the geography subject on topic of Village and City Spatial Interaction is categorized as very valid and suitable for use in the learning process.

Keywords: Media development ADDIE Kahoot application E-learning

INTRODUCTION

Education as an effort to make the nation's life more intelligent must continue to be improved in line with world developments and progress in the fields of science and technology. (Darung et al., 2020) stated that the development of science and technology plays a very important role in the field of education, and also in learning (Sari et al., 2023). In line with (Muhson, 2010), the use of teaching aids is influenced by advances in science and technology. (Irwoman et al., 2023) stated that adaptation to technological advances must be implemented in the world of education. According to (Suarsini et al., 2020), the development of education is influenced by the development of the industrial revolution. (Ginting & Harahap, 2020) concluded that the use of technology can support the learning process. The rapid progress of technology is an opportunity for the world of education and according to (Widia et al., 2023) presents challenges for education scholars. (Khairini & Yogica, 2021) stated that the development of technology-based learning media is a demand for teachers in this century of learning. (Saputra & Maliki, 2021) stated that the opportunity for teachers is in the form of packaging lesson material to make it more interesting.

Improving the quality of education can be done through various things, including improving the quality of teachers, equalizing educational infrastructure, providing learning

infrastructure, using appropriate learning media, and so on. Learning media is a very important component of learning resources in the learning process. (Tanjung & Delita, 2022) states that improving the quality of student learning processes and outcomes can be done by using learning media. (Fitriyah et al., 2021) stated that learning media can overcome learning problems that are difficult to observe. According to (Wijayanti et al., 2019), the use of maps in learning helps determine the relationship between the various phenomena being studied.

The availability of media in learning determines the success of learning. Effective media is one effort to improve the quality of the learning process (Nurfadillah et al., 2021). (A. Wijayanti et al., 2022) concluded that media development is a step to accelerate technological development in the education sector. (Rasyid et al., 2016) wrote that media functions to channel messages and encourage students' learning processes. According to (Khotimah et al., 2023), in managing learning, media plays a role as a teacher's tool. (Nurbaetina & Roviati, 2021) bored and even reluctant to do these activities because they feel that these activities are monotonous and tiring. emphasized that learning media aims to clarify the presentation of information, facilitate the learning process, and improve learning outcomes. (Pangestu et al., 2021) wrote that learning media is useful for making

teaching material easier to deliver. (Nugraha, 2017) states that the use of interactive audio-visual media in learning can complement the shortcomings of books.

The geography learning process can be carried out using various media and methods. Operationally, the learning process often does not go according to expectations. The use of learning media is ineffective due to the lack of teacher creativity in media development. The success of the learning process can be achieved through the use of media *e-learning*, one of which is the media based on the Kahoot application used in this research. Research that applies the ADDIE development model aims to develop learning media *e-learning* Kahoot application based on geography subjects. This research is expected to produce effective learning media in the learning process.

RESEARCH METHOD

The research method used is a descriptive qualitative research method. This research was carried out in class XII IPS at SMA Negeri 4 Gorontalo, Gorontalo Province. This research was carried out in the odd semester of the 2022/2023 academic year. The data used in this research consists of primary data and secondary data. This research applies the ADDIE development model which consists of five stages, namely the analysis stage, planning stage, development stage, implementation stage and evaluation stage. Data collection was carried out using questionnaire techniques for validators, questionnaires for students, interviews with teachers, and documentation. Analysis of validation results to determine the level of media suitability. This research also collected student responses to the learning media developed. Student responses are declared positive if more than 80% of students respond in the positive category for each aspect.

RESEARCH RESULTS AND DISCUSSION

The learning process in this digital era cannot be separated from the use of electronic-based media. The variety of learning media varies greatly, including print media, audio media, visual media, audio-visual media which

teachers can choose according to their needs. The ADDIE development model was chosen in this research because it completes the stages of media development. The first stage of research is analysis (*analysis*) produces information in the form of learning frequency, use of devices in the learning process by teachers, stages of learning by teachers, use of lecture methods and textbooks at the research location.

At the planning stage (*planning*), The researcher plans a framework and systematics for creating media based on information obtained from the results of the analysis stage, namely problems that exist in schools. This stage produces a concept map for making media in the learning process related to rural and urban spatial interaction material. The concept map produced at this stage is shown in Figure 1.

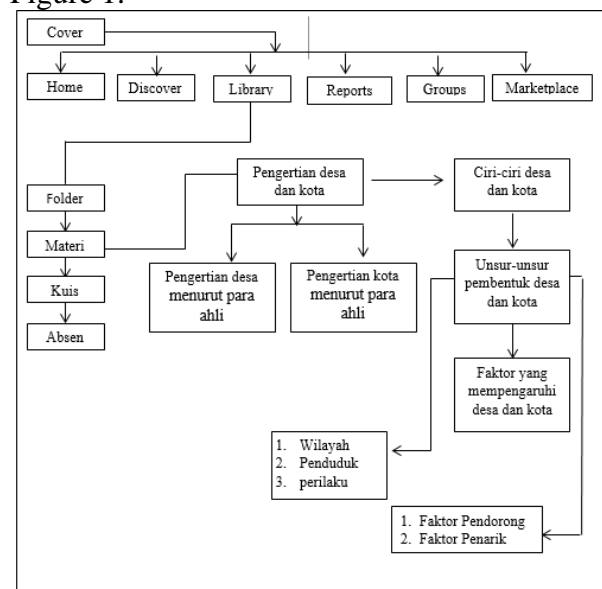


Figure 1. Learning Media Concept Map

Development stage (*development*) is the media creation stage in accordance with the media design and concept map produced at the planning stage. Learning media based on the Kahoot application can be accessed anytime and anywhere as long as it is connected to the internet. Kahoot application which is equipped with several features: discover, library, reports, group, marketplace, and others. The appearance of the Kahoot application is similar to the social media Facebook which is very familiar to school-aged children and adults. This is one of the advantages of the Kahoot application, students can easily access this

media because they are familiar with using the social media Facebook. In this research, all learning materials are packaged in the form of PowerPoint and document files which can be easily accessed and downloaded by students. Assignments, practice questions and attendance lists are also easily accessible to students. The appearance of Kahoot-based E-learning learning media is shown in Figure 2.

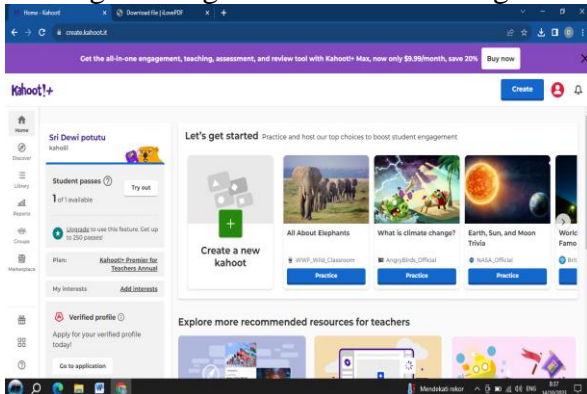


Figure 2. Initial appearance of Kahoot media

Media that has been created at the development stage will be validated and tested at the implementation stage (*implementation*). The media validation stage is carried out through a media validation process by experts including media experts, material experts and Geography subject teachers. Media trials were carried out at SMA Negeri 4 Gorontalo to obtain student responses to the developed Kahoot application-based learning media.

Validation of learning media by media experts includes several criteria, namely media layout, harmony in choosing the size, type, color of letters, suitability of the background, ease of use of the media, freedom to choose the material to be studied, and ease of interaction. The percentage of learning media validation levels that received a media expert assessment was 85%. This value shows that the media is very valid and does not require revision. The validation test by material experts includes several assessment criteria, namely material coverage, suitability of material to competency standards and basic competencies, suitability of material to indicators and learning objectives, ease of understanding of material, suitability of material, suitability of image selection and quizzes, and attractiveness of image illustrations. The material expert's

assessment of the learning media developed received a result of 83%, with valid qualifications and no need for revision.

Teachers are important actors in the learning process apart from students, so the learning media developed needs to be validated by geography teachers. Assessment of learning media by geography teachers includes several criteria, namely suitability of material to indicators and learning objectives, suitability of image selection, suitability of questions to material, use of language, effectiveness of use of learning media, and suitability to student characteristics. The geography teacher's assessment of Kahoot-based learning media received a score of 85%. The results of the media assessment by the teacher show that the media is very valid, does not require revision and is in accordance with student characteristics.

Student response data was obtained through a questionnaire distributed to students after showing the developed media. The results of the questionnaire analysis show that the average score of student responses to Kahoot-based learning media is 97.81%. Based on this value, learning media is categorized as getting a positive response.

Evaluation stage (*evaluation*), researchers evaluate the suitability of the media based on media expert validation results, material expert validation results, teacher validation results, and student responses to the media developed. The learning media developed is declared suitable for use if it has passed the validation stage by material experts, media experts, learning experts, and the results of student responses. The media expert validation score is 85%, the material expert validation score is 83%, the teacher validation score is 85%, and the average student response score is 97.81%. The validation scores by experts and the student response scores show that the media is categorized as very valid and suitable for use in the classroom learning process.

The learning media developed has several advantages. The first advantage of this media is its harmonious packaging so that it is attractive to students. The second advantage is that the material presented is important

material and is not well understood by students. The advantage of these three media is that they use the surrounding conditions to make it easier for students to understand the material.

CONCLUSION

The research results showed that the media expert validation score was 85%, the material expert validation score was 83%, the teacher validation score was 85%, and the average student response score was 97.81%. The scores resulting from validation by experts and the student response scores show that the learning media *eLearning* Kahoot-based Geography subject, Village and City Spatial Interaction material is categorized as very valid and suitable for use in the learning process. The development of Kahoot-based e-learning learning media is suitable for use in learning processes both outside the network (*offline*) as well as online learning (*online*).

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