

Development of Google Sites-Based Social Science Learning Media to Increase Students' Critical Thinking Ability



Aini Aziza¹, Kiromim Baroroh²

^{1,2}Faculty of Economics and Business, Yogyakarta State University, Yogyakarta, Indonesia

ABSTRACT: This research aims to (1) produce social studies learning media based on google sites to improve critical thinking skills of junior high school students grade VIII (2) determine the feasibility level of social studies learning media based on google sites to improve critical thinking skills of junior high school students grade VIII (3) determine the level of practicality of social studies learning media based on google sites to improve critical thinking skills of junior high school students grade VIII (4) determine the effectiveness of social studies learning media based on google sites to improve critical thinking skills of junior high school students grade VIII.

This development research uses the ADDIE development model which stands for the stages of development, namely: Analysis, Design, Development, Implementation, and Evaluation. The subjects of this study were SMPN 5 Banjit students totaling 60 divided into 2 groups, namely the experimental group and the control group. In this study, data were obtained using test and non-test techniques. The test technique was used to obtain data on the effectiveness of the product which was carried out using a student critical thinking ability test instrument. While the non-test technique was used to collect data on the validity and practicality of the product which was carried out using product validation sheets, material validation sheets, teacher assessment sheets, and student assessment sheets.

The results of this study indicate that the socialexplore website has very high feasibility. The results of material expert validation amounted to 3.79 with a decent category. The results of media validation amounted to 4.44 with a very feasible category. Teacher validation results of 4.40 with a very practical category. The results of user validation amounted to 4.31 with a very practical category. The results also show that the socialexplore website is effective and can help students to improve students' critical thinking skills on the material of the diversity of Indonesian society. The results of the experimental class critical thinking ability test were higher than the control class with an average value of 69.43 and the control class average value of 47.93. The Gain test results of the experimental class at SMPN 5 Banjit amounted to 0.68 with a moderate category.

KEYWORDS: critical thinking, google sites, ADDIE model

I. INTRODUCTION

Education in Indonesia is progressing but is still faced with several challenges, such as low equitable access to education, low quality and relevance of education compared to other countries, and weaknesses in education management related to independence and lack of knowledge and technology. This condition also occurs at SMP Negeri 5 Banjit, a junior high school in a rural area with adequate internet access and computer facilities. However, the use of technology in learning has not been maximized by teachers, who tend to use conventional teaching methods that are less interactive. 21st century learning requires innovation in learning that is oriented to the needs of students and the demands of the times, one of which is by improving students' critical thinking skills. The pre-research survey shows the low critical thinking skills of students, so a solution is needed that can help improve these abilities. In this context, the use of web-based learning media is an attractive alternative.

The development of web-based learning media is a potential solution to improve students' critical thinking skills. It offers an interactive and up-to-date learning experience through multimedia elements such as text, images, audio and video. However, its implementation is still limited due to constraints such as limited internet access, lack of teachers' digital teaching skills, and lack of curriculum-compliant content. Therefore, it is necessary to develop web-based learning media that is effective, easily accessible, and has interactive features that encourage students' critical thinking skills. One alternative development that can be used is Google Sites, which offers a user-friendly interface and is easy to use without requiring complicated IT skills.

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According to Rosiyana (2021), Google Sites can improve students' learning ability by allowing them to understand the material more broadly and making learning more interesting and fun. This media is free, easy to use, and accessible from various devices, and can be customized to make it more attractive to students (Salsabila & Aslam, 2022). Google Sites is an online application that allows the creation of classroom web pages without the need for complex programming or web design skills. This media is efficient, effective, and economical, and can increase students' interest in learning (Beta & Zurqoni, 2021a). With Google Sites, teachers can manage learning in a structured way and students can learn independently with materials prepared by the teacher (Rizal et al., 2023). Nevertheless, the application of Google Sites in online learning still needs to be improved to increase its effectiveness (Nadil, 2021). Based on this, this research aims to develop social studies learning media based on Google Sites for grade VIII students on the material of the diversity of Indonesian society. This media can be accessed by students and teachers at any time according to their needs. With features that can be explored, this media is expected to improve students' critical thinking skills in social studies.

II. METHODOLOGY

This study uses the Research and Development (R&D) research method by applying the ADDIE development model. The ADDIE model involves five important stages, namely: Analysis, Design, Development, Implementation, and Evaluation. The Analysis stage involves analyzing needs, materials, technology, and curriculum. The Design stage includes making flowcharts, preparing materials and content, and developing research instruments. At the Development stage, the product designed in the previous stage is created and validated by experts. The Implementation stage involves applying the product to the research subject, namely class VIII students at SMP Negeri 5 Banjit. Finally, the Evaluation stage is conducted to evaluate the products that have been developed.

III. RESEARCH RESULT

The development of this web-based learning media involves the Research and Development (R&D) method with the ADDIE model design (Analysis, Design, Development, Implementation, Evaluation), which produces a series of important steps in the development process.

At the Analysis stage, researchers conducted a needs mapping by observing and interviewing teachers. The results show that the current learning media is still limited to printed books, causing learning to be less interesting and students have difficulty understanding the material. Based on this analysis, supporting media that is easy to use and interesting, with features of images, videos, and quizzes are needed to increase student motivation and learning outcomes. Furthermore, at the Design stage, based on the results of the previous analysis, researchers designed learning website media features, materials, research instruments, learning designs, and learning devices. As a result, a dynamic and interactive learning media was created, in accordance with the needs and applicable curriculum.

The Development Stage is the step of making the components that have been designed previously, producing web-based learning media products, LKPD, and Assessment Questionnaire Instruments. Through the creation of Teaching Modules and learning media products, researchers are able to produce learning media that are in accordance with the needs of the independent curriculum used at SMP N 5 Banjit.

The implementation stage in this research involves the application of web-based learning media that has been developed to the subjects, namely social studies teachers and students of class VIII at SMP N 5 Banjit. Implementation is done through synchronous and asynchronous activities. Asynchronous learning is conducted outside of class hours, allowing students to learn more deeply by exploring the material on the website. While synchronous learning is conducted in class, focusing on group discussions and the results of students' independent exploration of online learning.

The flow of learning on the website is done by opening the website link, following the instructions for use, reading the learning objectives, filling in the attendance, accessing the material, and completing the evaluation. The developed product was then tested on a small scale and large scale. The results of the small-scale trial showed that learning media products based on Google sites were considered practical by teachers and students. While the results of the large scale trial also showed a very positive assessment from teachers and students, with a high average score for the aspects of convenience, usefulness, and interest.

At the Evaluation stage, data analysis is carried out to determine the effectiveness of learning media. The assessment was conducted by media experts, material experts, teachers, and students. The evaluation results will provide empirically and theoretically valid conclusions regarding the feasibility, practicality, and effectiveness of learning media based on google sites in learning social studies class VIII. Thus, this stage is important to measure the extent to which the learning media developed can make a positive contribution to the learning process.

Media validation was carried out by material experts and media experts using an assessment sheet that refers to the product eligibility criteria. The validation results show that this website is considered feasible by material experts with an average value of

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3.79 and very feasible by media experts with an average value of 4.44. Suggestions from material experts and media experts are that the learning objectives and questions used should at least reach the analysis level in Bloom's taxonomy to improve students' critical thinking skills. Thus, this website is expected to help students understand concepts deeply and develop critical thinking skills in evaluating information, inferring relationships, and making informed decisions.

The results showed that the developed website-based learning media, SocialExplore, was effective in improving students' critical thinking skills on the material of the plurality of Indonesian society in social studies class VIII. Testing using the Normalized Gain (N-Gain) test showed that the experimental class, which used Google Sites-based learning media, experienced a significant increase in critical thinking skills compared to the control class that used conventional methods. The Gain value of the experimental class was 0.68, categorized as a moderate improvement, while the control class only reached 0.29, categorized as a low improvement.

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IV. CONCLUSIONS

Based on previous research and discussion, it can be concluded that the development of learning media products based on google sites for social studies subjects grade VIII follows the ADDIE development procedure with the stages of analysis, design, development, implementation, and evaluation.

The assessment results from material experts and media experts stated that the products developed were suitable for use, with an average score of 4.12. The practicality assessment by teachers and students also showed very positive results, with a score of 4.4 and 4.25, respectively, in the very practical category.

In addition, students' responses to this learning media in improving critical thinking skills were also significant. The experimental class that used google sites-based learning media showed a higher increase in critical thinking skills compared to the control class. The results of the gain in critical thinking ability of the experimental class were in the range of values that included the medium category, while the control class was in the low category.

Thus, it can be concluded that the development of learning media based on google sites is effective in improving the quality of social studies learning in grade VIII, especially in developing students' critical thinking skills.

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