Developing Snakes and Ladders as a Civic Education Tool for Vocational High Schools

Dionisius Heckie Puspoko Jati¹, Gumpanat Boriboon²

¹Faculty of Teacher Training and Education, Satya Wacana Christian University, Indonesia

²Srinakharinwirot University, Thailand

Corresponding author, email: dionisius.jati@uksw.edu

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Abstract

The Snakes and Ladders Game is a civic education learning media designed for vocational high school students to promote understanding and social cohesion among diverse populations. This innovative approach aims to enhance understanding through educational games that facilitate discussions about cultural, racial, ethnic, and religious diversity. This research aims to determine the effectiveness, feasibility and validity of the Snakes and Ladders learning program on diverse content for Class XI Vocational Schools in the context of Bhinneka Tunggal Ika. The ADDIE model is applied in this research approach. The population in the study were 214 students of grade XI at SMK Saraswati. While the sample in this study was one class with 30 students. The instruments used in this research were a questionnaire on the practicality of teacher and student responses, a material expert validation questionnaire, a media expert validation questionnaire, and an exam in the form of questions related to the material. Media expert validators got a score of 78.3%, material expert validators got a score of 82.8%, and potential user validators got a score of 75.5 in this snakes and ladders media development research. The average percentage score obtained by learning material experts was 78.3%, meeting the requirements very well. In this study, the new idea is to use snakes and ladders which are played by the students themselves. The development of this learning media can improve students' understanding in following PPKn learning. The learning media used is the snake and ladder media. Teachers are expected to use interesting learning media to increase students' learning motivation.

Keywords: learning media, development, and snakes and ladders

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INTRODUCTION

Civic education is increasingly recognized for its role in fostering social cohesion and understanding among diverse populations. An innovative approach is the creation of educational games that encourage discussions about cultural, racial, ethnic, and religious diversity (Mislikhah,

2020). In the educational context, learning is the essence of forming communication between teachers and students at school. Learning has the aim of facilitating the exchange of information, understanding concepts and developing skills (Haudi, 2021). The Snakes and Ladders Game is being developed as a civic education learning media for vocational high school students to promote cultural, racial, ethnic, and religious diversity. The game aims to develop students' religious strength, self-control, personality, intelligence, noble character, and abilities, as per the National Education System Law Number 20 of 2003 (Dwi Cahyo, 2023).

Education is the transfer of values, information, experience, and skills from the older generation to the younger generation, aiming to improve physical and spiritual life functions (Akhmadi, 2023). Citizenship Education, as required by Pancasila and the 1945 Constitution, focuses on fostering self-diversity in religion, socio-culture, language, age, and ethnicity to become intelligent, skilled, and character-driven citizens. Pancasila and the 1945 Constitution, based on Indonesian national religion and culture, adapt to changing circumstances. Law Number 20 of 2003 and the 2013 Curriculum, Competency Based Curriculum, and 2006 KTSP form the basis for the Independent Curriculum (Lestari et al., 2023). Curriculum development is necessary to overcome obstacles both internally and externally. The Directorate General of Basic Secondary Education and General Secondary Education of the Ministry of National Education publishes Pancasila Education Subjects.

One of the main challenges in the learning process is creating an environment that supports and facilitates effective learning (Magdalena et al., 2020). Factors such as the role of educators, learning media, and student readiness and participation have a crucial role in determining the quality of learning achieved (Putra et al., 2022). In the digital era and the development of information technology, learning media has an increasingly important role (Aisyah et al., 2023). Effective learning media not only facilitates the delivery of material, but also encourages active interaction, collaboration between students, and increases learning motivation (Wati, 2021).

Researchers conducted a needs analysis of students through response questionnaires, and the results showed that 76.5% of students had not mastered learning. It was acknowledged that students within the Bhinneka Tunggal Ika frame faced difficulties with diverse content based on the findings of direct observations and interviews with PPKn teachers. The lack of learning resources, particularly those addressing the diversity within the framework, is a significant issue. 62% of students still struggle with the KKM score and the Bhinneka Tunggal Ika framework, indicating an ineffective teaching and learning process (Yusditiani et al., 2022).

Snakes and Ladders as a traditional game can be adapted into an interactive and entertaining learning medium (Rahma et al., 2022). Its use can increase student involvement in the learning process, make it easier to understand complex concepts, and increase their learning motivation (Nurcahyani et al., 2023). However, the implementation of snakes and ladders-based learning media also faces various challenges, such as expanding technological infrastructure in schools, integration with the existing curriculum, as well as preparation and training for educators in using this technology. All forms of media or instruments used in the learning process to help students understand concepts, facts or knowledge more successfully are called learning media (Hasan Harahap, 2022). Learning media can be physical, visual, or digital objects that are used as a means to facilitate understanding, learning experiences, and interactions between teachers and students.

The aim of using learning media is to improve students' understanding and retention of information through various forms of presentation and different learning activities (Nastiti et al., 2022). Learning media can take the form of images, audio, video, models, diagrams, graphs, educational games, and digital technology such as interactive software or online platforms (Vebrianto, 2020). Using appropriate and effective learning media can help speed up the learning process, increase student interest, and facilitate deeper and more interactive learning.

Learning media has several main functions, including: (1) Attracting Attention: Media can help attract students' interest and attention to the material being taught. (2) Increasing Understanding: With the help of media, abstract concepts can be explained more concretely and easily understood. (3) Providing a variety of learning experiences: Media allows the provision of various learning experiences that suit students' learning styles, such as visual, auditory and kinesthetic. (4) Facilitate the process of conveying information: Media can help teachers convey information in a more systematic and structured way. (5) Increasing Retention: By using interesting and relevant media, students tend to remember the information learned more easily (Ariyanto et al., 2020).

Snakes and Ladders is one of the learning media that can be used in the learning process. By playing snakes and ladders, students can also increase their enthusiasm for learning (Wulandari, 2022). Plot paper or game rule books, question cards, dice, and mascots are components of learning resources that use the snake and ladder game (Asiah et al., 2021). Apart from being effective as a teaching tool, the Snakes and Ladders game can increase student motivation, learning outcomes, social relationships and cognitive skills (Anggraeni et al., 2023).

Snakes and ladders is a board game where players advance as many times as the number on the dice is displayed. The winner is the first to reach the last box. This game can be used for educational purposes in the classroom, improving student learning outcomes and increasing motivation (Kurnia et al., 2018; Pratiwi et al., 2022). It creates a fun and interesting learning environment, boosting students' enthusiasm and motivation for learning (Mardiah et al., 2021).

The Snakes and ladders game enhances communication among students by allowing multiple players to interact. This game, adapted to the learning material, enhances their interactions and encourages support when solving problems (Safitri, 2019). Students can also collaborate more clearly, enhancing their overall learning experience. The snakes and ladders game enhances students' cognitive skills by requiring strategic thinking, planning, and decision-making, making it easier for them to absorb and engage with the content, thus increasing their mental activity (Karina et al., 2019). This research focuses on the development of a Snakes and Ladders Game to promote cultural, racial, ethnic, and religious diversity as a civic education learning media for vocational high school students.

This study aims to develop a concrete learning media used in schools. This research is useful for teachers in increasing students' learning motivation because so far, their motivation has been lacking. How to develop the learning media will be done in this study. A learning media can increase students' interest in participating in learning activities. Learning media are tools, materials, or devices used to deliver learning materials to students so that the teaching and learning process becomes more effective and efficient. These media can be in various forms, such as visual, audio, audiovisual, or digital.

METHODS

This research uses the ADDIE approach to conduct development research (R&D), which produces certain products and evaluates the results (Mar'atusholihah et al., 2019). The ADDIE model that will be used in this research is explained in detail as follows: (1) Analysis: During this phase, researchers examine the request for creating educational materials as well as the feasibility and prerequisites for doing so. (2) Design: The second stage of the ADDIE model is the design stage. The snake and ladder learning media draft are the design being discussed. (3) Development: The development stage is when a product is realized. Currently, this design is being followed by the creation of Snakes and Ladders teaching materials. After that, knowledgeable instructors and lecturers will validate it. The instruments prepared in the previous step are used by the validator during the validation process. (4) Limited implementation or implementation occurred at

Saraswati Vocational School, Salatiga City, the school chosen as the research site. (5) Assessment Using feedback from the response questionnaire, the researcher made final adjustments to the snakes and ladders learning resources at this time. This is to ensure that more schools can use the snakes and ladders learning materials that have been developed and are truly appropriate. The practicality of the model is illustrated by the descriptive category approach and percentage data analysis used in this research to validate the Snakes and Ladders learning media. Several tests and quantitative descriptive analysis methods were used in data analysis. The population in the study were 214 students of grade XI at SMK Saraswati. While the sample in this study was one class with 30 students.

RESULTS AND DISCUSSION

The main finding in this study is the lack of student learning motivation in PPKn learning. In this case, teachers must carry out improvement activities. Improvements are made by developing learning media the learning media used in this study is snakes and ladders. The results of the study showed changes from before using learning media and after. This research uses research and development methods. Snakes and Ladders learning media Cultural, Racial, Ethnic and Religious Diversity as a PPKn Learning Media for Vocational High School Students is the result of the research. The stages in this research include analysis, design, development, implementation and evaluation. The stages will be explained in detail in the following description.

The potential and problem analysis stage were carried out through interviews with the principal, deputy principal, teachers and students. The interview results show the potential that the implementation of learning still uses contextual methods and does not use learning media that attracts students' interest. Furthermore, the problem faced is the teacher's difficulty in compiling learning media due to insufficient time (Shofwan et al., 2023). Students are less interested in learning if there is no interesting learning media (Inayati et al., 2024). Researchers conducted literature reviews and relevant research on the use of interesting learning media. It was found that there are many existing learning methods such as cooperative methods, innovative methods, contextual methods, etc. Learning media can also be found both online and concrete. In this case, the researcher chose the snakes and ladders learning media to attract students' interest in learning.

The product design stage developed in this research is the snakes and ladders learning media for cultural, racial, ethnic and religious diversity (Azidin et al., 2022). The snakes and ladders learning media for Cultural, Racial, Ethnic and Religious Diversity consists of a board for playing snakes and ladders, dice, cards containing questions and a game guidebook. The design was developed into four snakes and ladders game designs, namely a cultural diversity board, a religious diversity board, an ethnic diversity board and a racial diversity board.

The design development stage is carried out by researchers and tested by learning media experts, diversity material experts and prospective practitioners who will use it in schools. The validation test results from the validator obtained a percentage figure of 78.3%. This means that the snakes and ladders learning media is in the high category and is said to be suitable for testing in schools, especially at Saraswati vocational high schools. Weaknesses and various suggestions for improving the product were obtained after discussing with the validator (Agung, 2023).

The implementation stage or product trial was carried out at Saraswati Vocational School, Salatiga City in class XI. Researchers conducted a pretest before being given the snakes and ladders learning media and a posttest after using the snakes and ladders learning media. It can be seen from the results of the normality analysis of the data above that the experimental class pretest has a significance value of 0.087 and the control class pretest has a significance value of

0.148. Considering that all variable classes have a significance value greater than 0.05, it can be concluded that the population of pretest and posttest data is regularly distributed. Furthermore, the input written by the participants was that the snakes and ladders learning media was useful for making it easier to learn the material. Students are interested in the snakes and ladders learning media, because it is in the form of a game, so it is easy to learn. Based on the average results obtained from 40 students, this snakes and ladders learning media can be said to be feasible or good with an average score of 3.4.

Evaluation or reflection stage of the Snakes and Ladders learning media product. After conducting a limited trial with class, the researcher made revisions in response to the answers given by the training participants to the questionnaire. To help participants understand the information offered in the learning media, researchers have included graphics that are appropriate to the content. The updated version will produce Snakes and Ladders learning materials prepared for extensive testing.

The discussion on developing learning media for games or snakes and ladders games refers to how to develop learning media for snakes and ladders (Siti and Wagino, 2024). The stages in this research include analysis, design, development, implementation and evaluation. The first step, finding potential and problems more effectively, helps the author map the problems faced by school principals and instructors in schools, especially those related to learning. This stage succeeded in helping the author choose the right educational resources to use.

Furthermore, the product design developed in this research is snakes and ladders learning media (Pratiwi et al., 2021). The snakes and ladders learning media for Cultural, Racial, Ethnic and Religious Diversity consists of a board for playing snakes and ladders, dice, question cards and a game guidebook. The design was developed into four snakes and ladders game designs, namely a cultural diversity board, a religious diversity board, an ethnic diversity board and a racial diversity board.

The design development stage is carried out by researchers and tested by learning media experts, diversity material experts and prospective practitioners who will use it in schools (Nurcahyani et al., 2023). The results of the validation test carried out by the validator are in the high category and are said to be suitable for testing in schools, especially at the Saraswati vocational high school. Next, the implementation stage or product trial was carried out at Saraswati Vocational School, Salatiga City in class XI. Based on the average results obtained from 40 students, these snakes and ladders learning media can be said to be suitable for use with a score of 3.4.

Stages of evaluation or reflection on the Snakes and Ladders learning media product. After conducting a limited trial with class, the researcher made revisions in response to the answers given by the training participants to the questionnaire. To help participants understand the information offered in the learning media, researchers have included graphics that are appropriate to the content. The updated version will produce Snakes and Ladders learning materials prepared for extensive testing.

The ADDIE paradigm is used in creating snakes and ladders learning materials. The efficacy of each stage involved in creating educational media is in line with Branch's perspective (Mar'atusholihah et al., 2019) and Atwi Suparman in (Aisyah et al., 2023a) claims that the advantages of the ADDIE model include being system-oriented, well known among educators , and has simple steps due to systematic work procedures, namely each step is always based on the previous step, improving it until an effective product is achieved. .

In addition, as many as 78.3% of experts who assessed the Snake and Ladder learning media offer received a percentage of validation results. This percentage shows that the evaluation findings are in the high category based on the categories and expert validation tests. So, the snakes

and ladders learning media is said to be worthy of being tried out. The material expert provided a percentage figure for module experts, with a score of 82.8%. Media experts gave a percentage figure for module experts who obtained a value of 75.5%. Additionally, 77.2% of practitioners or potential users in schools provided scores. Therefore, this is included in the high category. The task of this specialist in product validation is to determine the suitability of the product being developed. After that, a product trial was carried out at school, and the results were that Ha was approved and Ho was rejected. Thus, it can be said that pretest and posttest training differ in several ways. According to Rubiyati in (Aisyah et al., 2023b) claims that innovative training materials can improve teacher quality.

CONCLUSION

The development of this learning media can improve students' understanding in following PPKn learning. The learning media used is the snake and ladder media. Based on the research results and discussion, the conclusions are in accordance with the research problem formulation. Learning media development is carried out using the ADDIE Model. The stages in this research include analysis, design, development, implementation and evaluation. The average percentage score for educational media expert assessments is 78.3%. This percentage shows that the evaluation results are in the high category and are suitable for use based on the categories and expert validation tests. Based on the validation findings of subject matter experts, learning media experts, and prospective students in the class, such conclusions can be drawn. Suggestions are given to teachers to use learning media that attracts students' interest in participating in learning. The contribution of this research is an effort to improve the quality of learning in the classroom. The researcher would like to thank the Directorate of Research and Community Service (DRPM) of Satya Wacana Christian University for facilitating research funding so that this activity can be carried out.

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