



Development of Monopoly Media Based on Culturally Responsive Teaching on an Ecosystem Theme for Elementary School Students

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Abstract: Development of monopoly media based on culturally responsive teaching on ecosystem themes for fifth-grade elementary school students using the Research and Development method with the ADDIE model. Analysis of needs and conditions is focused on real conditions apart from innovative learning strategies, but the use of innovative and interesting learning media or learning resources makes learning more meaningful. The development of innovative learning media is an alternative to solving problems that occur in the learning process, especially for students. Culturally responsive teaching is an effective learning approach that is in line with curriculum demands. Monopoly media based on culturally responsive teaching on ecosystem material produces valid and responsive categories that are effective for users. The final results of the validation by material experts and media experts obtained quite high results in the valid category so that the product could be tested. The teacher's response resulted in a percentage of 100% and students were also positive towards this media with a percentage of 82.17%. Teachers and students agree that monopoly media based on culturally responsive teaching on ecosystem material is valid and suitable for use.

Keywords: Culturally responsive teaching; Media; Monopoly

Introduction

Curriculum changes will bring their atmosphere and characteristics, so teachers need to look for new ways to create a learning process that is not boring and can create learning that is effective for students, fun, and able to encourage students to be active and creative. The emphasis on the learning process using the 2013 curriculum is using a scientific approach. The scientific approach is an approach that prioritizes student creativity and findings.

Students in a class have diverse cultural backgrounds and characteristics. The diversity of students in a class becomes a challenge for teachers to unite academic abilities, culture, and community needs in future social life. However, teachers do not reflect

diversity in classroom learning. Teachers should pay attention to student diversity. Teachers must develop students who can compete in changing times. This means teachers must develop knowledge and skills. The learning approach Culturally responsive teaching is an approach that can develop the potential for student diversity by exploring students' academic abilities and psychosocial abilities (Geneva, 2018). Culturally responsive teaching can be a way for teachers to achieve student academic success (Edwards et al., 2013). Culturally responsive teaching makes learning meaningful and connects it to students' lives (Villegas et al., 2007). Culturally responsive teaching uses student characteristics and experiences. This is based on assumption 3 that when academic knowledge and skills are present in students' life experiences, they will gain

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meaningful learning and have higher interest and understand learning more easily (LeBlanc et al., 2011). Through culturally responsive teaching, students can experience academic success, develop cultural competence, and develop critical awareness (Ladson-Billings, 1994). Culturally responsive teaching is an effective learning approach that is in line with curriculum demands.

Culturally responsive teaching is a learning approach that recognizes the importance of students' cultural references in all aspects of learning (Ladson-Billings, 1994). Culturally responsive teaching is defined as using the cultural characteristics, experiences, and perspectives of diverse ethnic students as a more effective learning medium. The characteristics of culturally responsive teaching have several theories, namely, Positive perspectives on parents and families, communication of high expectations, learning within the context of 9 cultures, student-centered instruction, culturally mediated instruction, reshaping the curriculum, and teacher as facilitator (Ladson-Billings, 1994). Aceves (2014) put forward six general themes of the Culturally Responsive Teaching approach, namely instructional engagement; culture, language, and racial identity; multicultural awareness; high expectations; critical thinking, and social justice. (Hernandez, 2013) put forward a design for developing a culturally responsive teaching-learning approach that is adapted to learning mathematics and natural sciences.

This learning approach has five main categories start from cultural integration in material content, knowledge construction, not prejudiced in differences, social justice, academic development.

This stage requires students to be active in learning according to one of the characteristics of culturally responsive teaching, namely student-centered. This stage creates the soft skills of self-confidence, communicativeness, motivation, and responsibility. Culturally responsive teaching has characteristics including triggering positive student interactions, student-centered learning, and learning that triggers the formation of students' critical thinking attitudes. Meanwhile, for teachers, a culturally responsive teaching approach can facilitate teachers to integration students' cultural backgrounds in learning. Teachers can also motivate and guide students without distinguishing between students' cultural backgrounds. Culture in this case can be defined as the surrounding traditions, characteristics, and learning styles of students. The research was carried out on aspects of culturally responsive teaching (Hernandez, 2013).

Ecosystems are one of the subjects studied by fifth-grade elementary school students. This subject was chosen because studying this material requires active

students to participate and participate in learning (Cole et al., 2020; Handayani et al., 2020; Musyaddad et al., 2019). Apart from that, this material is also close to everyday life, but the large amount of material in the previous chapter makes the learning process on ecosystem material less effective.

Limitations of learning media are known to be one of the obstacles that exist in learning at the elementary school level, especially for students. The impact of limited media is the low interest and activity of students when participating in elementary school learning. Based on these problems, one step that teachers can take is to develop learning media. Learning with the concept of learning while playing. Learning while playing can be done through the development of monopoly media. Monopoly is a game that can be played by two to five students.

Board games such as Monopoly can be an idea for designing learning media. Monopoly games can be used as an alternative medium that is quite easy to implement and creates a pleasant atmosphere. The Monopoly game developed is different from other Monopoly games, this game was developed by incorporating scientific approach steps, namely observing, asking, trying, analyzing, reasoning, and communicating. This monopoly game media is a learning medium that can be used anywhere and anytime by users, and its use does not require electronic equipment or electricity, so this media can be used in remote schools that do not have facilities like other advanced schools.

Based on the description above, the researcher aims to develop monopoly media based on culturally responsive teaching as an alternative solution to learning problems for grade 5 elementary school students on the ecosystem theme and to find out whether the media can be used in learning and to present the results of limited trials on the media. Research and Development is used as an approach to Students are taught how to work collectively to solve problems presented by teachers, cooperate, be responsible, and respect each other's perspectives, in addition to the knowledge and skills that can be learned. Through the use of Monopoly game media, students will be actively immersed in learning. The research supports what has been done (Afikah et al., 2022; Bowden, 2019; Nur Rohmah et al., 2020) that monopoly is effective in improving learning outcomes for students and influencing understanding of learning material so researchers recommend using monopoly as a medium for learning. Research conducted Wulandari (2021) states that there are learning media innovations that are interesting, fun, and can increase students' motivation in learning. This research aim was to Development of Monopoly Media based on Culturally Responsive

Teaching on an Ecosystem Theme for Elementary School Students.

Method

The research method used is the research and development method. Research and development (R&D) is a research method or approach to produce new products or improve existing products (Zakariah et al., 2020), using the ADDIE model (Branch, 2009; Safitri et al., 2022) The procedures that will be carried out are analysis, design, development, implementation, and evaluation.

The analysis stage was carried out first to identify various problems in the class. This problem becomes a finding to become the basis for developing learning media. The second stage is to design the media being developed, namely monopoly. The design is written in a planning book called a storyboard. The third stage is related to the development of monopoly learning media, which is then validated by media experts and learning material experts. The next stage is to carry out an implementation and evaluation of the learning media in the classroom. In general, the stages of ADDIE development can be seen in Figure 1.

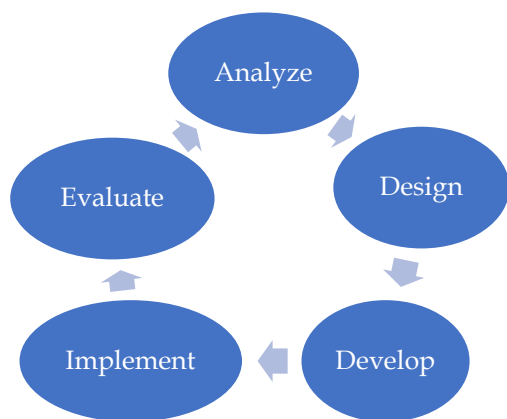


Figure 1. Stages of ADDIE development

This research uses instruments in the form of an interview guide, an observation guide as a form of needs analysis, an expert assessment scale to validate monopoly media, and a response questionnaire regarding the use of this media. This instrument is used by researchers to analyze product needs and validation. After the instrument is constructed regarding the aspects to be measured based on certain theories, it is then consulted with experts.

Result and Discussion

The research carried out is Research and Development with the ADDIE development model. The

result is a media product in the form of a monopoly based on culturally responsive teaching on the ecosystem theme. Analysis is the first stage carried out by researchers. This stage is carried out to identify problems and determine learning needs.

Based on the results of observations and interviews, information was obtained that in the learning process, teachers more often taught using a conventional approach using the lecture method, than students and teachers mostly used printed textbooks borrowed from the library. There is no special media with a culturally responsive teaching approach, while this approach is considered very good in developing the potential for student diversity by implementing learning based on the student's experience, culture, and even background so that learning can be adapted to student characteristics. The teacher also mentioned that one of the materials that was quite difficult was the ecosystem system. Furthermore, from the results of interviews with students, information was obtained that students were still experiencing learning difficulties because the learning media was still not interesting enough to motivate students to learn and the learning approaches were not yet varied so students' understanding always depended on students' explanations.

After carrying out a preliminary analysis stage from the results of observations, interviews, and surveys. Next, we enter the design stage, this stage aims to design the product to be developed, by collecting material that is tailored to indicators, competencies, and objectives, as well as supporting materials to develop monopoly media, a collection of questions that can improve students' thinking skills. The following is the monopoly development design:



Figure 2. Monopoly media design

At the development stage, the media that has been designed is then validated by experts to measure the level of suitability in terms of material and media. This stage is carried out to improve the quality of the media so that the expected goals can be achieved. Material

validation shows results according to the following table:

Table 1. Material Validation Results

Rated Aspect	Validation Result
Total score	36
Maximum score	40
Percentage	90%
Criteria	Valid

Based on the table regarding the results of material validation, monopoly media based on culturally responsive teaching gets a percentage of 90% and is classified as valid criteria. So that the media developed can be tested. This is because the material available in the media follows standard competency and indicators, the sentences used are easy to understand, there is support for presenting material in monopoly and this media can help students to learn.

Furthermore, validation of monopoly media is carried out by experts who provide assessments based on several aspects, including aspects of the size of monopoly media, design aspects of monopoly media, aspects of the content design of monopoly media, and aspects of the use of monopoly media. Media validation results are presented in Table 2.

Table 2. Media Validation Results

Rated Aspect	Validation Result
Total score	38
Maximum score	40
Percentage	95%
Criteria	Valid

Based on Table 2 regarding media validation results, monopoly media based on culturally responsive teaching gets a percentage of 95% and is classified as valid criteria. So that the media developed can be tested.

The next stage of implementation is applying monopoly media to ecosystem learning based on culturally responsive teaching. Learning with a culturally responsive teaching approach is adapted to the characteristics, learning styles, and ways of thinking of students with monopoly media tools that were previously developed and have been tested by experts.

The final stage is evaluation, this stage is done by filling out a questionnaire regarding teacher and student responses to monopoly media based on culturally responsive teaching on ecosystem material. Teacher response questionnaire containing statements about aspects of product use, aspects of learning content, and aspects of monopoly components. Student response questionnaire containing statements about learning style aspects, learning content aspects, design aspects, language aspects, and aspects of monopoly media use.

The results of the teacher response questionnaire obtained positive results with a percentage of 100% for monopoly media. Teachers agree that monopoly media based on culturally responsive teaching can help teachers in conveying ecosystem material. 70 responses from students also got positive results, the average percentage obtained was 82.17%. Based on the data obtained from each stage of development of the ADDIE model, it can be stated that monopoly media based on culturally responsive teaching on ecosystem material is included in the valid and suitable category for use.

The use of learning media in basic education is important (Lu et al., 2021; Moghavvemi et al., 2018). One of them is that the media will make it easier to convey information to students, especially students at the elementary school level. The learning media developed needs to be improved in the form of integration between learning media and learning models. This integration will make it easier to achieve the learning objectives that were previously planned at the beginning of the semester.

The development of learning media is also a form of adaptation to developments in learning technology. The process of improving education by adapting to technological developments is a necessity in the 21st century. The need for self-development by prioritizing the 4C abilities, namely critical thinking, creative thinking, collaboration, and communication (Cukurova et al., 2018; Khoiriyah et al., 2018; Lay et al., 2018). Developing educational capabilities is important to be able to participate in improving the quality of education in Indonesia.

Conclusion

Based on the results of research that has been carried out, using the Research and Development research method, using ADDIE. Thus, it can be concluded that monopoly media based on culturally responsive teaching on ecosystem material produces valid and responsive categories that are effective for users. The final results of the validation by material experts and media experts obtained quite high results in the valid category so that the product could be tested. The teacher's response resulted in a percentage of 100% and students were also positive towards this media with a percentage of 82.17%. Teachers and students agree that monopoly media based on culturally responsive teaching on ecosystem material is suitable for use.

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Author Contributions

F.A., Designing the research; I.Y., Making instruments; N.S., Write Article; I.Z.I., add discussion.

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Conflicts of Interest

No conflict interest.

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