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Development of Learning Tools Based on the Think Pair Share Model to Improve Fourth-Grade Students' Cooperation Skills

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Article

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Abstract

This study aims to develop learning tools based on the Think Pair Share model on the topic of cooperation for fourth-grade elementary school students. This study employs the Research and Development (R&D) method using the ADDIE development model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. However, this study is limited to the development and theoretical evaluation stages through a literature review approach without direct field testing. The background of this study is based on observations conducted at SD Negeri Tidung, which revealed that learning activities still tend to use conventional methods, making learning less engaging and unable to optimally improve students' cooperation skills. The analysis stage involved identifying students' needs and characteristics. The design stage included designing learning tools based on the Think Pair Share model, while the development stage focused on creating interactive learning tool products. Evaluation was conducted based on literature reviews and relevant previous studies. The findings indicate that learning tools based on the cooperative learning model Think Pair Share have the potential to improve motivation, engagement, and cooperation skills among fourth-grade elementary school students. Therefore, the developed learning tools are considered theoretically feasible as an innovative learning alternative that aligns with the characteristics of fourth-grade elementary school students.

INTRODUCTION

Education is a process that plays an important role in developing students' potential optimally in cognitive, affective, and psychomotor aspects. Therefore, the learning process in elementary schools must be designed in an effective, engaging manner and aligned with students' characteristics so that learning objectives can be achieved optimally. Effective learning does not only focus on delivering content but also on how students construct understanding through meaningful learning experiences. In this regard, the use of learning models becomes highly important because they help

teachers create a more active and collaborative learning environment. Cooperative learning models can transform passive learning into more active and participatory learning, making it easier for students to understand the material. This is in line with the opinion of Azhar Arsyad, who stated that learning tools function to enhance students' attention and understanding. Furthermore, according to Edgar Dale, the use of concrete approaches can improve students' comprehension because they learn through direct experiences.

Engaging learning activities can help students understand concepts more easily and increase their involvement in the learning process. Cooperation among students plays an important role in developing critical thinking and social skills. However, in practice, learning in elementary schools often still relies on conventional methods that do not actively involve students. This condition causes students to experience difficulties and show less interest in the material being taught. Based on observations conducted at SD Negeri Tidung, learning activities, particularly on the topic of cooperation, are still dominated by lecture methods and the use of textbooks, resulting in students being less active during the learning process.

One of the competencies that needs to be developed among fourth-grade elementary school students is the ability to cooperate. This topic requires students to work together, respect one another's opinions, and contribute within a group. Cooperation is a highly important social skill in community life. However, many students experience difficulties in developing cooperation skills when these are taught only verbally. This is because students require direct experiences in working together to internalize these values effectively. Therefore, the use of cooperative learning models is essential to help students develop cooperation skills in a concrete manner.

Students in the fourth grade of elementary school are in the concrete operational stage of development. This condition enables them to understand learning materials more quickly when real objects, group discussions, and activities that directly involve them are used. The theory Berikut terjemahan lanjutan dengan mempertahankan struktur artikel dan isi aslinya:

The cognitive development theory proposed by Jean Piaget explains that children at this stage understand concepts more easily through direct experiences than through abstract explanations. Furthermore, according to Vygotsky, the learning process is also influenced by social interaction and a supportive learning environment; therefore, the use of cooperative learning models can help students build understanding more effectively.

The Think Pair Share (TPS) model is one of the cooperative learning models developed by Frank Lyman. This model provides students with opportunities to think independently, discuss ideas in pairs, and then share the results of their

discussions with the entire class. The use of the TPS model can increase student engagement because it includes stages of individual thinking, paired discussion, and group presentation. In addition, this model can help students develop cooperation skills through structured discussion activities. Cooperative learning is also supported by Gagné's theory, which states that engaging and varied learning conditions can enhance the effectiveness of learning.

Attractive learning tools can help students understand learning materials more effectively because they are able to learn actively and gain more meaningful learning experiences. The use of a model that combines discussion and student presentation activities can improve memory retention and deepen conceptual understanding. This demonstrates that learning activities that actively involve students produce more optimal outcomes than passive learning approaches.

This study employed the Research and Development (R&D) method using the ADDIE model, which includes the stages of analysis, design, development, implementation, and evaluation. The ADDIE model was selected because it provides a systematic framework for developing learning tools. However, in this study, the implementation stage was not conducted directly because the research was based on a literature review approach. Therefore, this study focused on the stages of analysis, design, development, and theoretical evaluation.

Based on the description above, it can be concluded that an innovation in learning is needed to improve students' cooperation skills while helping them understand concepts more concretely. Therefore, this study aims to develop learning tools based on the Think Pair Share model to improve the cooperation skills of fourth-grade elementary school students as an innovative learning alternative that aligns with students' characteristics.

METHOD

This study employed the Research and Development (R&D) method, which aims to develop a product in the form of learning tools based on the Think Pair Share model to improve the cooperation skills of fourth-grade elementary school students. The R&D method is a type of research intended to create a specific product and evaluate its feasibility and effectiveness within a learning context. According to Sugiyono (2014), research and development is a research method aimed at determining the extent to which a product possesses quality and relevance in accordance with its development objectives. Furthermore, Gall et al. stated that the primary purpose of research and development is to produce a product while simultaneously testing its effectiveness. In addition, Fayrus and Slamet (2022) explained that educational development research is a systematic process used to develop and validate educational products.

In developing these learning tools, the researcher employed the ADDIE model, which consists of five main stages: Analysis, Design, Development, Implementation, and Evaluation. The ADDIE model was selected because it provides systematic, simple, and easily applicable procedures for developing learning tools. Barokati and Annas (2013) stated that the ADDIE model is one of the models that can serve as a guide in developing effective, dynamic learning that supports the instructional process. Similarly, Robert Maribe Branch explained that the ADDIE model is a systematic and effective approach to developing instructional products that meet learners' needs. Each stage of the ADDIE model is interconnected and continuous, enabling the development process to be carried out in a directed manner and resulting in products that are valid, practical, and effective for instructional use.

Furthermore, the selection of the ADDIE model is supported by the instructional design theory proposed by Walter Dick and Lou Carey, which emphasizes the importance of a systematic process in designing effective instruction. This theory explains that instructional development should proceed through stages of needs analysis, design, development, and evaluation to produce products that align with learning objectives. Moreover, according to Benny A. Pribadi, a systematic instructional design model helps developers produce high-quality learning tools that are appropriate for learners' characteristics. In addition, Seels and Glasgow emphasized that the evaluation process in product development is crucial to ensuring the quality and usefulness of the resulting product.

Fourth-grade elementary school students require learning tools that encourage cooperation, critical thinking, and communication among peers. Therefore, the researcher designed learning tools based on the Think Pair Share model as a solution to improve the quality of learning and students' cooperation skills. These learning tools were designed by considering students' characteristics and learning needs that emphasize cooperative activities and direct experiences. Instruments were developed to obtain reliable data regarding the feasibility of the developed learning tools. During the development process, several improvements were made to the learning tool components, such as clarifying instructional procedures, improving activity designs, and adjusting task difficulty levels to make them easier for students to understand before implementation.

The development of learning tools in this study utilized the ADDIE model, consisting of five stages: Analysis, Design, Development, Implementation, and Evaluation. This model was selected because it provides systematic and structured procedures for developing effective instructional products that meet learners' needs. According to Robert Maribe Branch, the ADDIE model is a systematic

approach to instructional design that enables developers to produce high-quality products through interconnected and continuous stages.

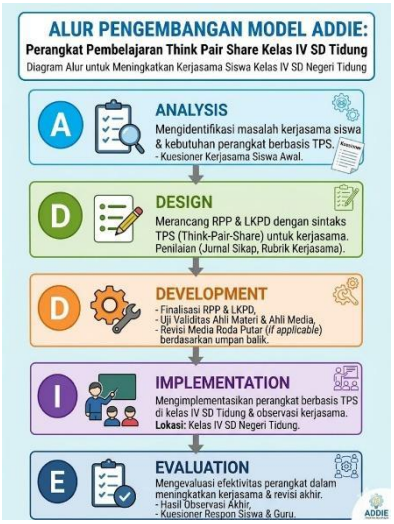

Figure 1. ADDIE Model Development Flow

The first stage is Analysis, which aims to identify learning needs, student characteristics, and problems occurring in the learning process. At this stage, the researcher analyzed learning conditions in elementary schools, particularly regarding the cooperation skills of fourth-grade students. The analysis results indicated that learning activities were still dominated by conventional methods, resulting in students being less active and their cooperation skills not developing optimally. Furthermore, the characteristics of fourth-grade elementary school students, who require social interaction, became an important consideration in determining the learning model to be developed. Therefore, learning tools that encourage discussion, collaboration, and active student participation were needed.

The second stage is Design, which involves planning the learning tools to be developed. At this stage, the researcher designed the components of the Think Pair Share-based learning tools that would be used as instructional guides. The learning tools were designed according to the structured and systematic stages of Think (individual thinking), Pair (paired discussion), and Share (sharing with the class). In addition, this stage included designing the visual appearance of the learning tools to make them attractive, selecting appropriate language, and preparing materials that were adjusted to the students' developmental level. The design stage also included the preparation of student worksheets, collaboration assessment rubrics, and learning scenarios so that the learning devices could be used optimally during the instructional process.

The third stage was development, which involved realizing the previously designed plans. At this stage, the researcher began developing the actual learning devices by preparing the Lesson Plan (RPP), Student Worksheets (LKPD), and collaboration assessment instruments. In addition, the researcher developed supporting components such as teacher guides, LKPD usage instructions, and assessment rubrics. The developed devices were then analyzed theoretically to evaluate their alignment with the principles of cooperative learning. The development process also involved revisions, such as clarifying the Think Pair Share procedures, improving the LKPD layout, and adjusting task difficulty levels to make them easier for students to understand.

The fourth stage was implementation, which refers to the use of the learning devices in instructional activities. However, in this study, the implementation stage was not conducted directly in the field because the research employed a literature study approach. Nevertheless, conceptually, Think Pair Share-based learning devices can be applied in classroom instruction by actively engaging students through independent thinking, paired discussions, and sharing discussion outcomes with the entire class, thereby creating an enjoyable, interactive, and collaborative learning environment.

The final stage was evaluation, which aimed to assess the quality and feasibility of the developed learning devices. In this study, evaluation was conducted theoretically through a review of relevant literature and previous studies. The evaluation included assessments of the attractiveness of the devices, their suitability to students' characteristics, and their potential to support the development of fourth-grade students' collaboration skills. Through this evaluation stage, the strengths and weaknesses of the devices could be identified and used as the basis for further improvement and development.

The purpose of the evaluation stage was to identify the strengths and weaknesses of the developed devices and determine how effective they were in improving students' collaboration skills. If any shortcomings were identified, revisions and refinements would be made to ensure that the devices better met the learning needs of elementary school students. Through this evaluation process, the Think Pair Share-based learning devices are expected to function as valid, practical, and effective instructional tools capable of creating a more active, enjoyable, and meaningful learning experience for students.

RESULTS AND DISCUSSION

This study produced a learning device based on the Think Pair Share model, designed to improve the collaboration skills of fourth-grade students at SD Negeri Tidung. The device was developed using the ADDIE model, consisting of five stages: analysis, design, development, implementation, and evaluation, which were systematically carried out based on problems identified during the instructional process.

Initial observations revealed that students still experienced difficulties in collaborating and interacting with their peers, while classroom instruction remained dominated by lecture-based methods and textbook use, resulting in limited student engagement. This condition caused students to become bored quickly, lose focus, and demonstrate low learning motivation. Therefore, an innovative learning device was needed to help students develop collaboration skills in a more concrete and enjoyable way.

As a solution, the researcher designed a learning device based on the Think Pair Share model as an engaging and interactive instructional tool that would encourage students to participate more actively and understand learning materials more easily, thereby improving both collaboration skills and learning outcomes.

During the analysis phase, the researcher conducted observations and interviews with fourth-grade teachers at SD Negeri Tidung to understand the existing classroom learning conditions. The findings indicated that the learning process was still dominated by conventional teaching methods, with lectures serving as the primary instructional strategy. Teachers tended to provide direct explanations without utilizing learning models that encouraged student collaboration. Consequently, students mainly acted as passive listeners and were not actively involved in learning activities. In addition, several students appeared unfocused, easily distracted, and showed signs of boredom during lessons.

The interview results also revealed that students experienced difficulties collaborating and communicating with their peers, particularly during group discussion activities. Teachers reported that students understood learning materials more easily when instruction involved structured discussions and allowed direct student participation. However, the use of cooperative learning models in the classroom remained very limited, preventing students from gaining enjoyable and collaborative learning experiences. Based on these findings, the researcher concluded that learning devices capable of increasing student engagement and collaboration while facilitating more concrete conceptual understanding were needed.

During the design phase, the researcher began designing learning devices based on the Think Pair Share model as a solution to the identified problems. The devices were structured around three main stages: Think, Pair, and Share.

At the Think stage, students were presented with questions or problems that they had to consider independently before discussing them with others. At the Pair stage, students discussed their ideas with their partners to exchange and compare their thoughts. At the Share stage, each pair presented the results of their discussion to the entire class. The learning devices were designed with clear procedures, easily understandable language, and comprehensive collaboration assessment instruments to ensure their suitability for fourth-grade elementary school students.

During the development phase, the learning devices were produced by preparing the Lesson Plan (RPP), Student Worksheets (LKPD), and collaboration assessment rubrics. The devices consisted of several main components, namely teacher guides, Think Pair Share worksheets, collaboration assessment instruments, and user instructions. The activities were designed according to collaboration indicators and the competency level of fourth-grade elementary school students. During the development process, revisions were also made, including clarifying the Think Pair Share procedures, improving the LKPD layout, and adjusting task difficulty levels to make them easier for students to understand. The development results indicated that the Think Pair Share-based learning devices possessed systematic, attractive, and user-friendly characteristics for classroom instruction.

Visually, the developed Think Pair Share-based learning devices featured an attractive appearance with complete and well-structured components. The devices were designed to create an enjoyable learning environment through thinking and discussion activities. The implementation process involved students independently considering answers to given questions, discussing their ideas with their partners, and finally sharing the results of their discussions with the entire class. These activities can create an interactive, collaborative, and enjoyable learning atmosphere.

Figure 2. Think Pair Share-Based Learning Devices

During the implementation phase, although direct field implementation was not conducted because this study employed a literature review approach, the Think Pair Share-based learning devices can conceptually be applied in classroom instruction. Teachers may integrate these devices into learning activities by pairing students and providing opportunities for them to think independently, engage in paired discussions, and present their discussion outcomes to the entire class. Such activities can create an interactive and enjoyable learning environment while encouraging students to become more active and cooperative throughout the learning process.

During the evaluation phase, the learning devices were analyzed theoretically based on literature reviews and previous studies. The evaluation results indicated that learning devices based on the cooperative Think Pair Share model have the potential to increase student engagement and support the development of collaboration skills more concretely. The devices were also considered appropriate for the characteristics of fourth-grade elementary school students, who generally prefer interactive and collaborative learning activities. Furthermore, the Think Pair Share-based learning devices demonstrated advantages in terms of ease of use, visual attractiveness, and alignment with learning competencies.

Overall, the findings indicate that the developed Think Pair Share-based learning devices have strong potential for use in elementary school instruction. These devices not only help students develop collaboration skills but also enhance their engagement in the learning process. Therefore, Think Pair Share-based learning devices can serve as an alternative solution for creating more innovative, interactive, and effective learning experiences.

CONCLUSION

The development of learning devices based on the Think Pair Share model demonstrates that systematically designed instructional materials developed through the ADDIE model can serve as a solution to learning challenges in fourth-grade elementary classrooms, particularly in improving students' collaboration skills. The identified problems included low levels of student collaboration and limited active participation, which were caused by the continued use of conventional teaching methods and the insufficient application of cooperative learning models. The developed Think Pair Share-based learning devices addressed these issues by providing learning experiences that were more concrete, engaging, and actively involved students through the stages of thinking, discussing, and sharing.

The findings of this study indicate that learning devices based on the Think Pair Share model have the potential to be implemented as an instructional alternative that can enhance students' collaboration skills and conceptual understanding. Therefore, teachers are encouraged to utilize innovative and interactive cooperative learning models to create a more effective and enjoyable learning environment. Furthermore, future research is expected to directly test the effectiveness of these learning devices through classroom implementation in order to obtain stronger empirical evidence regarding improvements in student collaboration and learning outcomes.

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