



The Implementation of Cross Puzzle Media in Thematic Learning on The Learning Interest of Grade V Students at SD Swasta Tiara

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ABSTRACT

The main problem underlying this research is the low learning interest of fifth-grade students at Tiara Private Elementary School, which is evident from their lack of interest and minimal activeness in thematic learning. This research aims to comprehensively describe the content of the Crossword Puzzle media, the implementation of the Crossword Puzzle media, and the impact of its use on students' learning interest. The method used is descriptive qualitative with 30 students and their fifth-grade homeroom teachers as subjects. Data were collected through interviews, questionnaires, and documentation, then analyzed narratively. The results show that the content of the Crossword Puzzle covers Indonesian, Science, and Mathematics materials with descending and horizontal questions that are in accordance with the thematic concept. The implementation of the Crossword Puzzle was carried out interactively and in groups, accompanied by discussions and feedback. Learning interest when the Crossword Puzzle media was applied to fifth-grade students experienced a significant increase. This increase is seen from the indicators of students' attention, involvement, and interest which are in the high category, while the aspect of feelings of pleasure reached the very high category. Overall, the level of students' learning interest is in the high category. Thus, this study shows that crossword puzzle media can be an effective learning alternative to increase students' interest in learning thematic learning.

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1. Introduction

Interest in learning is a crucial aspect in education, particularly in achieving learning objectives. Interest in learning is defined as a student's enthusiasm or desire to actively participate in the learning process (Sinaga et al., 2024). Interest in learning focuses on a feeling of preference and interest in a subject or activity without being pressured (Laoli et al., 2024). Interest in learning demonstrates attention, focus, persistence, behavior regulation, effort, knowledge, and the results of a student's interactions with a particular activity (Nurhasanah & Sobandi, 2024). Thus, interest in learning is a drive within students that fosters enjoyment, attention, and commitment to participating in classroom learning.

Ideally, student interest in learning is characterized by a strong sense of enjoyment, attention, and interest in the classroom learning process, thus encouraging students to be active, diligent, and consistent in their learning (Laoli et al., 2024). Students who demonstrate an interest in learning will demonstrate a willingness to learn without being forced and will make a sincere effort to understand the material. Ideal learning interest is also evident in students' willingness to ask questions, experiment, and relate new knowledge to previous experiences. Therefore, learning interest not only reflects the drive to achieve academic results during learning but also reflects the positive attitudes students display during learning.



However, in reality, students at the elementary school level still lack interest in learning, including in thematic learning activities. Thematic learning is a learning approach that integrates or blends several subjects into a single unit bound by a specific theme. Based on preliminary observations at SD Swata Tiara in Bandar Setia, Percut Sei Tuan District, Deli Serdang Regency, North Sumatra Province, students were found to be consistently chatting and playing with their deskmates during class activities. Furthermore, students were reluctant to come to the front of the class. This indicates that students' learning interests tend to be weak. These findings align with the opinion of Saputro et al. (2022), who stated that weak learning interests can be identified when some students talk to themselves during the learning process and do not pay attention to the teacher's explanations.

Problems with learning interest can be caused by various factors. External factors affecting learning interest originate from teachers, such as their approach and communication, learning methods, and learning media (Putri et al., 2022). Similarly, in elementary schools, external factors that commonly influence learning interest include teaching methods, curriculum, learning facilities and infrastructure, learning resources, learning media, student relationships with peers, and various co-curricular activities (Korompot et al., 2020). In conclusion, student learning interest is influenced by external factors, including teacher approach and communication, learning methods media, and the general learning environment.

Teachers must actively act as facilitators, ensuring students are always motivated, interested, and eager to participate in classroom learning activities. Increasing student interest can be achieved through changes to the learning process, particularly by integrating engaging and innovative learning media (Zahra et al., 2023, p. 8). Learning media is anything that can be used to convey messages from sender to recipient, thereby stimulating students' thoughts, feelings, attention, and interests, effectively and efficiently achieving learning objectives in the learning process (Sudarwati et al., 2019, p. 37). One such learning medium is crossword puzzles (TTS). Crossword puzzles refer to games consisting of a collection of squares with vertical and horizontal paths corresponding to questions (Murti et al., 2021).

Crossword puzzles are associated with learning interest because they are believed to increase student interest and engagement in learning (Warda & Suaedi, 2025). Playing crossword puzzles can actively engage students and train them in problem-solving skills (Sugiarto, 2021). Crossword puzzles are popular with students because they are considered fun, challenging, and can be played while learning. Therefore, students often play crossword puzzles in their daily lives, such as when playing with friends at home (Murti et al., 2021).

Crossword puzzles (TTS) are a form of active learning rooted in constructivist learning theory (Sandi, 2018, p. 3). Constructivist theory emphasizes the active role of students in constructing their own understanding and knowledge. Constructivist perspectives emphasize the use of various media, including oral and written communication, to make learning more effective (Zaini, 2021, p. 38). Therefore, crossword puzzles are part of constructivist theory, helping students actively construct understanding.

Previous research supports teachers in implementing crossword puzzles. The study, conducted by Ernawati (2020), was titled "Using Crossword Puzzles to Increase Student Interest in Fifth Grade at Mis Sp. Lanting Sinabang." The research results show that the implementation of Crossword Puzzles (TTS) significantly increased student learning interest, as evidenced by the increase in observations of teacher activity, student activity, and interest questionnaires from Cycle I to Cycle III. This means that the implementation of Crossword Puzzles (TTS) significantly increased student learning interest.

Based on this background, the researcher was interested in understanding the content of Crossword Puzzles (TTS), how to use them, and the impact of their implementation on student learning interest in thematic learning. Therefore, the researcher will describe the content, methods, and student learning interest when using Crossword Puzzles in thematic learning in the classroom. To find these answers, a study entitled "The Application of Crossword Puzzles in Thematic Learning to the Learning Interest of Fifth-Grade Students at Tiara Private Elementary School" was conducted. It is hoped that this research will provide innovations that support the use of media in learning.

2. Methods

The research method used was descriptive qualitative. Qualitative research produces data in the form of written and spoken words, as well as observable behavior (Moleong, 2021, p. 4). Meanwhile, a descriptive approach aims to describe phenomena as they exist without providing special treatment (Sugiyono, 2019, p. 12). The research was conducted at Tiara Private Elementary School. The subjects were 30 fifth-grade students. The research informant was the fifth-grade homeroom teacher.

Data collection techniques used were interviews, questionnaires, and documentation. Interviews were conducted to obtain information about the content and application of the Crossword Puzzle media. The questionnaire was used to elicit students' learning interest in thematic learning. The student learning interest questionnaire consisted of 10 statements from four indicators adapted from (Taqwani et al., 2024): (1) students' enjoyment of learning; (2) students' attention to learning; (3) students' interest in learning; and (4) students' engagement in learning. Documentation was used to support the research data through key document findings and documentation of classroom learning implementation. The research data was analyzed using descriptive analysis techniques.



3. Result and Discussion

Crossword Puzzle Content in Thematic Learning

The material presented in the Crossword Puzzle includes subjects from Natural Sciences (IPA), Mathematics (MM), and Indonesian. The selection of material is intended not only to strengthen conceptual understanding but also to foster students' interest in learning. With the variety of material across disciplines, it is hoped that students will feel more engaged, less bored, and have intrinsic motivation to understand the lesson more deeply.

The Indonesian language content in the Crossword Puzzle is presented in the form of descriptive text with three main characteristics. In terms of purpose, the Crossword Puzzle trains students to describe objects through physical characteristics or taste, for example, sweet, white, or orange. Regarding objects, all answers, such as spinach, milk, tuna, and rice, are specific and singular real nouns, emphasizing the need for a clear focus in descriptive texts. In terms of content, the Crossword Puzzle instructions require students to include facts and details, such as calcium-rich milk or omega-3-rich tuna, thus practicing the ability to combine information with accurate and comprehensive language skills.

The science content in the crossword puzzle is tailored to the topic of nutrition and healthy eating. Each answer represents an important nutrient, such as rice as a source of carbohydrates, tofu and protein as sources of protein, and tuna as a source of healthy fats. Vitamin A in carrots, vitamin C in oranges, calcium in milk, and fiber in vegetables are also included. Students will easily understand the function of food as a source of energy, building, regulating, and protecting the human body.

The math content in the crossword puzzle helps students understand simple arithmetic operations through the number of squares in words. For example, the word "carrot" consists of 6 squares and "sweet" consists of 5 squares, so the difference is 1 square ($6-5=1$). Students can also count the total squares in a given row or column. Second, geometrically, the crossword puzzle illustrates the concept of intersecting lines. The words "horizontal" and "downward" act as line segments that meet at the same letter square. For example, the words "susu" (downward) and "tahu" (horizontal) intersect at the letter "u." This trains students' spatial logic and understanding of basic geometric concepts during classroom learning activities.

The crossword puzzle (TTS) displayed through the PuzzleMaker application contains horizontal and vertical answer boxes. The number of boxes corresponds to the answer word in the question. Each box contains a different answer, making the answer boxes more engaging.



Figure 1. Crossword Puzzle (TTS) Media

Using Crossword Puzzles in Thematic Learning

The use of crossword puzzles (TTS) in thematic learning at Tiara Private Elementary School begins with teacher preparation in class. At this stage, the teacher determines the learning material for the class, creates a list of keywords and definitions, and organizes these keywords into a crossword puzzle format using the PuzzleMaker application. The IT-based crossword puzzles created through PuzzleMaker make the puzzles more engaging, easier to understand, and can be reused in other materials later. As an introduction to the lesson, the teacher explains the objectives of the activities to be carried out. This explanation aims to ensure students understand the material to be learned throughout the learning process from beginning to end.

The implementation of crossword puzzles in thematic learning involves four stages. In the first stage, the teacher divides students into five groups of six. Group formation is done randomly. In the second stage, the teacher prepares an infocus, speakers, laptops, and Wi-Fi. The infocus and speakers are used to clarify the display and sound of the crossword puzzle. In the third stage, the teacher displays a crossword puzzle. The crossword puzzle is displayed via a projector connected to a laptop, allowing all students to clearly

see the questions displayed. In the fourth stage, the teacher invites students to answer the crossword puzzle. The teacher begins by distributing two answer sheets to each group. The teacher then reads the questions in descending order, and the students listen attentively. After the teacher finishes reading the questions, students are invited to open the answer sheets and find the correct answer in the boxes. Next, each group randomly presents their answer to the questions read, creating a participatory, interactive learning environment that encourages collaboration. If a group answers correctly, a representative is asked to come forward and write the answer on the board, filling in one letter in each descending box according to the count. If the answer is correctly answered, the entire class applauds. The crossword puzzle continues until all the questions have been answered.

After the crossword puzzle is completed, the activity continues with discussion and feedback. The teacher and students discuss the answers they have filled in, then provide further explanations if any answers are incorrect. During the feedback activity, students are given the opportunity to ask questions regarding material they don't understand, thereby deepening their understanding.

The use of crossword puzzles effectively supports students' interest in learning, as evidenced by increased enjoyment during play, increased attention to questions, interest in providing answers, and active engagement when writing answers on the board.



Figure 2. Use of Crossword Puzzles (TTS) Media

Student Learning Interest in Thematic Learning Using Crossword Puzzles

1. Responses Before Using Crossword Puzzles

When fifth-grade students were asked about their experiences, especially in the lower grades, they admitted they had never used crossword puzzles in their learning. This indicates that crosswords were something completely new to them. This newness apparently triggered a strong positive response, namely a strong sense of curiosity. This curiosity acted as an effective initial impetus, transforming their attitudes into enthusiasm to try and learn using crossword puzzles. This aligns with relevant research findings by Simbolon et al. (2024, p. 185) that curiosity, sparked by the challenges of crossword puzzles, is a key factor in improving vocabulary comprehension and making the game engaging. This experience demonstrates that new and different learning media have a powerful appeal and are able to capture and maintain students' attention.

2. Student Learning Interest

The results of the questionnaire indicate that the use of crossword puzzles (TTS) is a highly effective strategy in stimulating and increasing student learning interest. This questionnaire measures learning interest through four main indicators: (1) attention, (2) interest, (3) feelings of enjoyment, and (4) involvement (Septiani et al., 2020, p. 65). Overall, the questionnaire results showed very positive or high percentages for each aspect of learning interest indicators.

The first indicator of learning interest is attention. This aspect measures students' focus on the learning process and their avoidance of distracting activities such as talking or playing while learning. Students consistently demonstrate a high level of attention, evidenced by a conducive learning environment and minimal distractions during the presentation.

The second indicator of learning interest is interest. This aspect, which encompasses students' concentration and cognitive activity, such as taking notes, asking questions of the teacher, and providing feedback, indicates a high level of student interest. The application of crossword puzzles (TTS) successfully sparked curiosity and encouraged students to be more mentally active in processing information.

The third indicator of learning interest is the feeling of enjoyment. This feeling aspect measures affective aspects such as enthusiasm for participating in learning, taking notes, and completing assignments with enthusiasm. Students demonstrated a very high level of enjoyment towards the learning process. This enjoyment factor served as a primary driver that strengthened other aspects of interest.

The fourth indicator of learning interest is engagement. The engagement aspect assesses students' active participation in learning activities, such as participating and taking an active role in discussions. Students demonstrated a high level of enjoyment. Students demonstrated a strong willingness to engage directly and actively participate in learning activities using crossword puzzles (TTS).

Comprehensively, this study concludes that the application of crossword puzzles (TTS) is an effective pedagogical strategy for increasing students' interest in thematic learning. This success is evident in the high positive responses across all four main indicators. Crossword puzzles (TTS) are able to initially arouse students' enjoyment. This aligns with the main advantage of crossword puzzles (TTS) as found in relevant research by Hakim and Kartikasari (2021, p. 31), namely that crossword puzzles contain a game element that can foster enthusiasm and enjoyment in learning without feeling bored. By prioritizing student enjoyment, crossword puzzles (TTS) can create a fun and boredom-free learning environment. Thus, they serve as an important foundation for increasing attention, sparking interest, and strengthening engagement throughout the learning process.

3. Teacher Responses to Student Learning Interest

Based on interviews with fifth-grade teachers at Tiara Private Elementary School, it can be concluded that crossword puzzles (TTS) can increase students' attention to the subject matter. This increased attention is clearly visible in students' independent learning activities, as supported by relevant research by Ulfiah and Wahyuningsih (2023, p. 2), which states that during the process, students actively seek answers independently, ensuring that the learning material they obtain is not solely sourced from teacher explanations. This means that high levels of attention are a prerequisite for the emergence of independent student information-seeking activities. Therefore, the application of crossword puzzles (TTS) can encourage students to think and learn actively.

Crossword puzzles (TTS) are supported by theory because they encourage students to actively construct their own understanding, rather than simply receiving information. Constructivist Learning Theory effectively shifts the teacher's role from a transmitter of information to a facilitator, while students act as active builders of knowledge. This is achieved by encouraging active discovery through problem-solving, linking new concepts to existing understandings, and stimulating social interaction through group discussions. Thus, the learning process goes beyond mere knowledge transfer; it significantly increases student engagement.

The students' high level of enthusiasm is evident in their immediate requests to play the crossword puzzle again, as they felt there were too few questions. This demonstrates their genuine enjoyment of the process. Furthermore, the crossword puzzle positively impacts student engagement and active participation in class. This observation is supported by relevant research findings, according to Nurezalita and Barokah (2025, p. 263), who noted that throughout the learning process, students were highly enthusiastic and demonstrated significant increased participation. They were more active in discussions, consistently completing the crossword puzzles presented. This means that students' requests to play again demonstrate their enthusiasm, as crossword puzzle consistently fosters high engagement and active discussion.

The teacher noted significant changes in students' attitudes, with those who were initially shy becoming willing and bold enough to come to the front of the class and attempt to solve problems. This change indicated an increase in self-confidence, consistent with the findings of relevant research by Parhan et al. (2023, p. 12). Therefore, the benefits of crossword puzzles are not limited to the cognitive aspect of expanding vocabulary, but also to the affective aspect of developing self-confidence and courage to act.

Although a few students showed a lack of interest, the teacher addressed this by directly encouraging their participation, ensuring that all students remained actively engaged. This action is consistent with the pedagogical principles of relevant research by Safi et al. (2025, p. 1201), which states that positive emotional connections encourage students to participate more boldly and confidently. The significant impact was that students who were initially quiet or lacking in confidence became more enthusiastic, active, and motivated to review the material independently. This effectively demonstrates that teacher intervention is not simply coercion, but rather part of creating an environment that results in positive attitudinal changes in students during learning activities.

However, the main challenge faced by teachers lies in the technical process of creating Crossword Puzzles (TTS), namely ensuring that the design of the boxes, questions, and answer lengths are compatible. Other challenges include selecting thematic materials that are truly effective in converting them into Crossword Puzzles (TTS) format and arranging appropriate time allocation so that all students can participate. These difficulties are in line with the shortcomings of Crossword Puzzles (TTS) noted in relevant research by Simbolon et al. (2024, p. 185), namely: requiring a long time due to adjusting columns and letter relationships and not being able to be used for materials that have detailed explanations. This indicates that the challenges experienced by teachers are inherent constraints of Crossword Puzzles (TTS) itself. Therefore, teachers plan to continue using Crossword Puzzles (TTS) in the future, but flexibly adapting them to the most relevant materials to maintain students' learning interest.

4. Conclusion

The content of the Crossword Puzzle (TTS) media in thematic learning covers Indonesian, Science (IPA), and Mathematics. The Indonesian language material explains descriptive tests, Science (IPA) explains food ingredients, and Mathematics explains



arithmetic operations. The content displayed in the Crossword Puzzle (TTS) media in the PuzzleMaker application contains vertical and horizontal boxes containing descending and horizontal answer options. The implementation of the Crossword Puzzle (TTS) media is presented in a highly engaging, technology-based manner. The crossword puzzle media is implemented in groups, supported by discussion and feedback activities, resulting in a more participatory, interactive, and enjoyable learning environment. Students actively think, discuss, and solve questions in groups using the Crossword Puzzle (TTS). Student learning interest in thematic learning that implements the Crossword Puzzle (TTS) media shows positive results. Student learning interest increases significantly when using the Crossword Puzzle (TTS). Increased interest in learning can be seen from four indicators: attention, involvement, and student interest, which are in the high category, and feelings of enjoyment, which are in the very high category. This increased interest in learning results in students enthusiastically requesting similar activities to be repeated. Therefore, crossword puzzles (TTS) can be used as an alternative learning method that can increase student interest and create more meaningful learning.

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