Interactive Learning Innovation through Puzzle Media: A Solution to Improve Student Literacy

Solchan Ghozali, Yuliastutik, Rahayu Mardikaningsih, Didit Darmawan, M. Dikhyah Al Laisty, Muhammad Wihdatun Nafiin, Amatillah Thaha

Universitas Sunan Giri Surabaya

Email: dr.diditdarmawan@gmail.com

ABSTRACT – Reading ability is a very important basic competency for elementary school students. This research explores the potential of puzzle media as an innovative learning tool to improve students' reading skills. Using the literature study method, this research identifies the advantages of puzzle media, such as the ability to create an interactive, fun and motivating learning experience for students. Various types of puzzles, such as crossword puzzles, jigsaw puzzles and word puzzles, have proven effective in helping students understand letters, words and sentences in a fun way. The implementation of puzzle media faces several challenges, including limited teacher understanding, diverse student characteristics, and lack of parental involvement. Collaboration between teachers, students and parents is key to overcoming these obstacles. This study recommends teacher training, a variety of puzzle media, as well as parental involvement in supporting learning at home. Further research is needed to quantitatively evaluate the effectiveness of puzzle media and integrate it into the basic education curriculum. With an integrated approach, puzzle media can be an effective tool in improving students' reading skills and contribute to improving the quality of education in Indonesia.

Keywords: puzzle media, reading skills, interactive learning, primary education, teacher-parent collaboration.

A. INTRODUCTION

Education is one of the most important aspects that contribute to improving the quality of life of people in various fields. Through education, individuals not only acquire skills but also knowledge needed to achieve life goals. One of the main activities in acquiring information and knowledge is reading. Reading plays a fundamental role, not only to increase knowledge but also to broaden the horizons of the reader.

According to Law Number 20 Year 2003 on the National Education System, the development of a reading culture is an important principle in the implementation of education. This is in line with the opinion of Jediut et al. (2020), which states that children with reading skills will acquire more information than children who do not have these skills. Therefore, the ability to read must continue to be developed from an early age as a foundation for the success of students in learning at primary school.

Reading skills at the primary school level play a crucial role as the foundation for learning. Students' inability to read can have a fatal impact, making it difficult for them to actively participate in learning. Rovigo (2019) emphasizes that reading is a mandatory skill that all children should have, because through reading they can learn various subjects. This is hindered by the fact that many students do not have the desire to read more books.

The low level of students' reading skills is also caused by the lack of use of innovative learning media. Hendrayani (2017) highlights that the lack of variety in learning methods and media contributes to the low reading skills of students in the lower grades. Teachers and schools must immediately take concrete steps to improve students' reading skills, one of which is by introducing more interactive learning media (Sinambela, 2014).

Reading skills are one of the essential foundations in the broader learning process, and mastering these skills is often a challenge for many students. Various studies have shown that low reading skills can have a negative impact on students' overall academic performance. In this context, it is important to explore various learning methods and media that can improve reading skills, especially among struggling students. One approach that has attracted attention is the use of puzzle media, which is expected to provide a more interactive and enjoyable learning experience.

Puzzle media, as a learning aid, offers an innovative approach in teaching reading skills. According to Tastin (2021), the development of this media stems from the need to create a learning environment that is not only engaging but also able to motivate students. However, although the potential of puzzle media in improving reading skills has been recognized, there are still challenges in its implementation in various educational contexts. Several factors, such as differences in student characteristics, availability of resources and teachers' understanding of the use of this medium, can affect its effectiveness in improving reading skills.

While puzzles can provide a fun learning experience, there are deeper questions about the extent to which they can be integrated into the existing curriculum. These challenges include how to adapt the puzzles to suit different levels of student ability and how to objectively measure their impact on improving reading skills. Thus, while puzzle media offers promising potential, there are still many aspects that need to be further researched to fully understand its role and effectiveness in the context of reading learning.

Based on the characteristics of elementary school students who tend to like to play, the use of puzzle media is very suitable to be applied in learning. Puzzles allow students to learn actively through the activity of arranging pictures, letters, or words into a complete series. This research aims to review the development of puzzle media as one of the solutions in improving the reading skills of elementary school students, with the hope that it can make a real contribution in improving the quality of education in Indonesia.

B. METHOD

This research uses the literature study method, which is a series of activities that involve searching, evaluating, and analyzing various literatures relevant to the research topic. Literature study was chosen because this method allows researchers to gather in-depth information from various sources, including books, journals, articles, and other online sources, in order to answer the research questions regarding the development of puzzle media to improve elementary school students' reading skills.

The main purpose of desk research is to summarize, analyze and interpret concepts and theories relevant to the research project. In this study, literature searches were conducted in the 2020-2022 timeframe through various reputable platforms, such as Google Scholar, Sinta, Scopus, and DOAJ, to ensure the quality and relevance of data sources.

Data collection techniques include reviewing various sources of information related to the research topic. The collected data were then organized based on their relevance to the research objectives. Furthermore, the data was analyzed and synthesized to generate new concepts that support the research findings. This approach aims to formulate new hypotheses that can be the basis for further research.

This study used the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model framework to evaluate the findings in the reviewed literature. This model helps to ensure that the puzzle media development process identified in previous research has a strong methodological basis and can be implemented properly.

This literature study serves as a critical evaluation of previous studies, both in terms of advantages and disadvantages, so that it can make a real contribution to understanding the development of puzzle learning media. The data obtained is expected to provide practical guidance for teachers and schools in applying puzzle media to improve the reading skills of elementary school students.

C. RESULTS AND DISCUSSION

The development of puzzle media as a learning tool to improve learners' reading skills in primary schools has been the focus of attention in various studies. Puzzle media, which combines visual and motor elements, can create an interactive and fun learning experience. According to Tastin (2021), the use of this media not only attracts students' attention, but can also increase their motivation to learn to read. This is important, given that motivation is one of the key factors in an effective learning process.

In the context of education, reading skills are one of the basic competencies that students must master (Akmal et al., 2015). Many students at the primary school level experience difficulties in understanding reading texts. This difficulty is often caused by students' lack of interest and motivation in reading. Therefore, the development of innovative learning media,

such as puzzles, can be a solution to overcome this problem. Puzzle media can help students in recognizing letters, words, and sentences in a more fun way.

One of the advantages of puzzle media is its ability to combine visual and kinesthetic learning. Students who learn using media that involves physical activity tend to understand the material more easily. Puzzles allow students to interact directly with the learning elements, so they can learn while playing. This is in line with constructivist learning theory which emphasizes the importance of direct experience in the learning process.

However, although puzzle media has many advantages, there are challenges in its implementation in the classroom. Not all teachers have sufficient understanding of how to use puzzle media effectively. Some teachers may find it difficult to integrate this media into the existing curriculum (Mardikaningsih & Darmawan, 2021). Therefore, training and professional development for teachers is essential to ensure that they can utilize puzzle media well.

Student characteristics also affect the effectiveness of puzzle media in improving reading skills. Students with different backgrounds may have different responses to the use of puzzle media. Students who are more visual may find it easier to understand the material through puzzles, while students who are more kinesthetic may require a more interactive approach. Therefore, it is important to consider students' characteristics when designing and implementing learning media (Karina et al., 2018).

In terms of effectiveness measurement, the use of puzzle media can improve students' learning outcomes in reading. However, the measurements taken in the study are still qualitative and require a quantitative approach to obtain more objective data. Therefore, further research is needed to evaluate the impact of using puzzle media on students' reading skills in more depth.

In addition, it is important to explore different types of puzzles that can be used in reading learning. According to research by Lembong et al. (2015), variations in puzzle types, such as crosswords, jigsaws and word puzzles, can provide different learning experiences for students. Each type of puzzle has its own uniqueness that can be adjusted to the learning objectives to be achieved. Therefore, puzzle media development should consider these variations to increase their effectiveness.

Crossword puzzles are one of the most commonly used puzzle types in reading learning. In crossword puzzles, students are presented with clues that they must answer by filling in the blank boxes with the appropriate words. This activity not only trains reading skills, but also expands students' vocabulary. Crossword puzzles can be designed with varying levels of difficulty, so they can be adapted to students' abilities. In this way, students can learn while playing, which can increase their motivation to read.

Jigsaw puzzles are also an interesting type of puzzle to use in learning to read. In a jigsaw puzzle, students have to assemble pieces of images or text into a cohesive whole. This activity encourages students to think critically and analytically, as they have to understand how the pieces relate to each other. Jigsaw puzzles can be used to introduce new stories or concepts, so that students not only learn to read, but also understand the context of what they are reading.

Word puzzles, which are often a list of words to look for in a letter grid, are also an effective tool in improving reading skills. They help students recognize and remember new words, and improve their reading speed. Word puzzles can be designed around a specific theme, allowing students to learn new vocabulary in a fun context. In this way, students not only learn to read, but also expand their knowledge of language.

In addition to these three types of puzzles, there are also other variations such as logic puzzles and jigsaw puzzles. Logic puzzles can be used to train students' critical thinking skills, while picture puzzles can help students understand stories through visuals. Each type of puzzle has a different approach to learning to read, so educators can choose the type of puzzle that best suits the learning objectives to be achieved.

The use of different types of puzzles in learning to read can also help create a more dynamic learning atmosphere. By combining different types of puzzles, educators can keep students' interest high and prevent boredom. This is especially important in the context of learning that takes place over a long period of time. When students feel engaged and interested, they tend to be more motivated to learn and actively participate in learning activities.

The importance of considering a variety of puzzle types also relates to the different characteristics of students. Each student has a unique learning style, and some may prefer certain types of puzzles over others. By offering a variety of puzzle types, educators can cater to diverse learning needs and ensure that all students have the opportunity to engage in the learning process. It can also help boost students' confidence when they successfully complete the puzzle they choose (Amalia & Hidayat, 2018).

In developing puzzle media, educators also need to pay attention to the context and themes that are relevant to students. For example, puzzles related to local themes or local culture can increase student engagement in learning. In this way, students not only learn to read, but also relate their learning to the experiences and knowledge they have. This can create a stronger connection between learning and students' daily lives.

The exploration of different types of puzzles in reading learning is an important step in creating a more engaging and effective learning experience. By understanding the characteristics and uniqueness of each type of puzzle, educators can design activities that are more in line with learning objectives. Therefore, the development of puzzle media should consider these variations to increase its effectiveness in improving students' reading skills. With the right approach, the use of puzzles can be an invaluable tool in literacy education in primary schools.

The involvement of teachers, students and parents is an important factor in encouraging the use of puzzle media as part of learning. Puzzle media, which has been proven effective in improving reading skills, requires support from all parties to achieve optimal results. Research by Nugroho (2022) shows that support from parents in the learning process at home can increase students' motivation to learn. Therefore, it is important for teachers to involve parents in the learning process, so that they can support the use of puzzle media at home.

Teachers act as facilitators in learning that uses puzzle media. They are not only responsible for teaching the material, but also for creating a supportive learning environment (Saroinsong & Sinambela, 2014). In this context, teachers need to understand how to use puzzle media effectively and how to integrate it into the curriculum. By providing the right training and resources, teachers can improve their skills in using puzzle media, so they can provide a better learning experience for students.

Students also have an important role in this process. Students' involvement in choosing the type of puzzle they prefer can increase their interest and motivation to learn. When students feel they have control over their learning process, they tend to be more engaged and excited. Therefore, teachers need to provide opportunities for students to participate in the selection of puzzle media that will be used in learning. In this way, students will feel more connected to the material being taught (Putra et al., 2017).

Parents, on the other hand, can provide invaluable support in the learning process at home. When parents are involved in learning activities using puzzle media, they can help reinforce what students have learned at school. Nugroho (2022) notes that parents who are actively involved in their children's education can increase students' motivation and confidence. Therefore, it is important for teachers to communicate to parents about the benefits of using puzzle media and how they can contribute.

One way to involve parents is to hold workshops or seminars that explain the use of puzzle media in learning. In these events, teachers can provide information on how to use puzzles at home and provide examples of activities that can be done with children (Delviani et al., 2016). By providing parents with knowledge and skills, they will be better equipped to support their children's learning at home.

Teachers can also develop learning materials that students can take home to work on with parents. For example, teachers can provide crossword puzzles or word puzzles related to the material that has been taught in class (Agustin & Widiyanti, 2022). In this way, students can practice at home with parental guidance, which in turn can strengthen their understanding of the material. Parents' involvement in this activity can create a positive learning atmosphere at home.

Collaboration between teachers, students and parents can also create a stronger learning community. When all parties work together, they can support each other and share experiences in using puzzle media. For example, teachers can hold regular meetings to discuss student progress and share successful strategies for using puzzle media. In this way, all parties can learn from each other and improve learning effectiveness.

It is also important to create an open channel of communication between teachers and parents. By providing clear and regular information about student progress and the use of puzzle media, parents will feel more involved and have a better understanding of what is happening in the classroom (Pahlavi, 2021). Good communication can help build trust between teachers and parents, which in turn can increase parental support for learning at home.

The involvement of teachers, students and parents in the use of puzzle media can create a more holistic and comprehensive learning experience. With good collaboration, all parties can contribute to creating a learning environment that supports and motivates students. Therefore, it is important for educators to design strategies that involve all parties in the learning process, so that the use of puzzle media can provide maximum benefits in improving students' reading skills. With an integrated approach, puzzle media can be a very effective tool in literacy education in primary schools.

Finally, although puzzle media offers a lot of potential in improving students' reading skills, there are still many aspects that need further research. Further research is needed to explore how puzzle media can be effectively integrated into the existing curriculum and how to objectively measure its impact on students' reading ability. Thus, the development of puzzle media can be a significant step in improving the quality of education in primary schools.

D. CONCLUSIONS

Puzzle media is an innovative learning tool that has proven to be effective in improving the reading skills of primary school students. The use of this media not only provides an interactive and fun learning experience, but is also able to increase student motivation. Through different types of puzzles such as crosswords, jigsaw puzzles and word puzzles, students can learn to read while playing, which contributes to improving their literacy skills.

However, the implementation of puzzle media faces challenges, including limited teacher understanding, diverse student characteristics and lack of support from parents. Therefore, collaboration between teachers, students and parents is needed to ensure the effectiveness of puzzle media in learning. Further research is needed to explore the integration of puzzle media into the curriculum and quantitatively evaluate its impact.

Teachers need to receive special training to understand how to use and integrate puzzle media into learning so that its use is more effective. A variety of puzzle types tailored to students' needs and abilities is also important to maintain their interest and motivation in learning. Active parental involvement through workshops or learning activities at home can support the use of puzzle media and strengthen learning outcomes at school.

Adaptive curriculum development is also needed so that puzzle media can be integrated systematically and measurably in the learning process. Further research with a quantitative approach is recommended to evaluate the impact of using puzzle media more objectively, so that it can provide a more comprehensive picture of its effectiveness in improving the reading skills of elementary school students.

REFERENCES

Agustin, I. & I. S. R. Widiyanti. 2022. Analisis Penggunaan Media Spelling Puzzle untuk Meningkatkan Kemampuan Membaca Permulaan Siswa Disleksia di Sekolah Dasar Penyelenggara Pendidikan Inklusi. *Media Penelitian Pendidikan: Jurnal Penelitian dalam Bidang Pendidikan dan Pengajaran*, 16(1), 88-96.

Akmal, D. Kurniawan, D. Darmawan, & A. Wardani. 2015. *Manajemen Pendidikan*. IntiPresindo Pustaka, Bandung.

Amalia, N. H. & N. Hidayat. 2018. Penggunaan Media Teka-Teki Silang (Crossword Puzzle) dalam Meningkatkan Kemampuan Baca Tulis Kosakata Bahasa Arab Peserta Didik Kelas III MI Ma'arif Giriloyo 1 Bantul. *Al-Bidayah: jurnal pendidikan dasar Islam*, 10(1), 119-134.

Delviani, D., D. Djuanda, & N. Hanifah. 2016. Penerapan Model Kooperatif Tipe CIRC (Cooperative Integrated Reading and Composition) Berbantuan Media Puzzle Kalimat untuk Meningkatkan Kemampuan Membaca Anak dalam Menentukan Pikiran Pokok. *Jurnal Pena Ilmiah*, 1(1), 91-100.

Hendrayani, A. 2018. Peningkatan Minat Baca dan Kemampuan Membaca Peserta Didik Kelas Rendah Melalui Penggunaan Reading Corner. *Jurnal Penelitian Pendidikan*, 17(3), 235-248.

Jediut, M., F. J. Madu, & A. Juano. 2020. Peningkatan Kemampuan Membaca dan Menghitung Siswa Kelas Tinggi di SDI Kenda melalui Tambahan Jam Pelajaran. *JIPD (Jurnal Inovasi Pendidikan Dasar)*, 4(1), 57.

Karina, A., E. Davitri, & D. Darmawan. 2018. Kedisiplinan dan Kemandirian Siswa dalam Proses Pembelajaran dan Pengembangan Diri. *Jurnal Ilmiah Manajemen Pendidikan Indonesia*, 5(2), 107-120.

Lembong, D., S. Hutomo & D. Darmawan. 2015. *Komunikasi Pendidikan*. IntiPresindo Pustaka, Bandung.

Mardikaningsih, R. & D. Darmawan. 2021. Peran Kompetensi Pedagogik Guru dan Lingkungan Belajar untuk Meningkatkan Minat Belajar Siswa. *Jurnal Ilmiah Manajemen dan Pendidikan Indonesia*, 8(1), 33-39.

Nugroho, R. 2022. Peran Orang Tua dalam Mendukung Pembelajaran di Rumah. *Jurnal Pendidikan Keluarga*, 4(1), 67-75.

Pahlavi, I. K. A. 2021. Upaya Meningkatkan Kemampuan Membaca dan Menulis Permulaan Menggunakan Media Puzzle Huruf untuk Siswa Kelas I Sekolah Dasar. *Basic Education*, 10(2), 161-175.

Purwanti, S., T. Palambeta, D. Darmawan, & S. Arifin. 2014. Hubungan Metode Pembelajaran dan Motivasi Belajar Siswa. *Jurnal Ilmu Pendidikan*, 8(1), 37-46.

Putra, A.R., D. Darmawan, & R. Mardikaningsih. 2017. Peningkatan Kemampuan Siswa dengan Profesionalisme dan Kompetensi Guru. *Jurnal Ilmiah Manajemen Pendidikan Indonesia*, 3(3), 139-150.

Rovigo, A. R. & A. S. R. I. Wijiastuti. 2019. Pendekatan VAKT Terhadap Kemampuan Membaca untuk Anak Kesulitan Belajar. *Jurnal Pendidikan Khusus*, 12(3), 2-13.

Saroinsong, B. & E. A. Sinambela. 2014. Uji Beda Hasil Belajar Siswa melalui Metode Pembelajaran Ceramah dan Metode Pembelajaran Simulasi. *Jurnal Ilmiah Manajemen Pendidikan Indonesia*, 1(1), 33-42.

Sinambela, E. A. 2014. Motivasi Belajar dan Disiplin Belajar serta Pengaruhnya terhadap Hasil Belajar Siswa. *Jurnal Ilmu Pendidikan*, 8(2), 91-104.

Sinambela, E. A. 2014. Pengaruh Lingkungan Belajar dan Kemampuan guru terhadap Prestasi Belajar Siswa. *Jurnal Ilmu Pendidikan*, 8(1), 25-36.

Tastin, T., H. A. Sholikhah, & S. Sulastri. 2021. Pengembangan Media Pembelajaran Puzzle pada Materi Membaca Permulaan Siswa Kelas 1 SD Negeri 77 Prabumulih. *Jurnal Ilmiah Bina Edukasi*, 14(2), 157-168.