



THE IMPACT OF INTEGRATING JOYFUL LEARNING PRINCIPLES IN TEAM GAMES TOURNAMENTS ON ELEMENTARY SCHOOL STUDENTS' UNDERSTANDING OF JAVANESE LITERACY CONCEPTS

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Abstract. The background of this study focuses on the low understanding of the Javanese script caused by a monotonous and uninteresting learning approach. This study aims to identify the effectiveness of joyful learning in increasing students' interest and knowledge of the Javanese script. This study was conducted at SD 1 Padurenan, focusing on fourth-grade students. The method used is a quantitative approach with a one-group pretest-posttest design, involving 17 students as the sample. Data were collected through written tests, interviews, and documentation. The study showed a significant increase in understanding of Javanese script after implementing joyful learning, with an average pretest score of 50 and a posttest score of 82.49. The N-Gain test yielded an average score of 0.6564, indicating a fairly substantial increase. The conclusion of this study shows that applying the principle of joyful learning effectively improves students' understanding of Javanese script concepts, with implications for the importance of using innovative approaches to learning. The joyful learning principle was applied in this study through the use of the Teams Games Tournament learning model, Javanese script snakes-and-ladders learning media, and student feedback during the learning process.

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INTRODUCTION

Quality education is an essential pillar in creating an intelligent and characterful generation. In Indonesia, one challenge in basic education is students' low interest in learning, especially local materials such as the Javanese script. The Ministry of Education and Culture data shows that only 30% of Java students can recognise and use Javanese script well (Kemdikbud RI, 2021). This shows the need for an innovative approach to learning to increase students' interest and understanding of the material. This classic problem is still found in several elementary schools. Many teachers still use conventional approaches; learning models are not yet innovative; and learning is less interesting and seems monotonous. The Javanese language learning process should be carried out not just as a process of acquiring meaning, but as a meaning-making process, so that students internalise values (Insani et al., 2024). With this concept, students gain cognitive understanding and are supported by affective reinforcement.

Understanding the concept of Javanese script is the first step for students in developing their reading and writing skills in Javanese script. Understanding concepts involves complex cognitive processes in which individuals remember information and connect it with existing knowledge (Filiyanda et al., 2024). Deep conceptual understanding contributes to students' ability to solve problems and apply knowledge in new situations. A good conceptual understanding is a foundation for developing practical problem-solving skills (Laily et al., 2020).

Field findings indicate that students' understanding of Javanese script concepts at SD 1 Padurenan remains relatively low. This is reinforced by an interview with one of the teachers, who stated that students seemed less enthusiastic about learning Javanese script material than when studying other subject matter. This condition impacts students' low understanding of

Javanese script concepts. Many students still do not know the form of Javanese script, so they have difficulty applying it in writing. Teachers only use LKS books to reference Javanese script in class. After that, students are asked to memorise the form of Javanese script, then work through the practice questions in the LKS, changing Latin script into Javanese script with the help of the *Pepak Basa Jawa* book, which contains the Javanese script forms. Based on initial observations conducted by the research team, several problems were identified as follows. (1) Teachers have not presented enjoyable learning in the classroom, so that learning seems boring to students. (2) No supporting media available in learning can help students learn the Javanese script.

The problems identified at SD 1 Padurenan are a classic example of the failure of conventional pedagogical approaches to challenging and less engaging material, such as Javanese script. The main problem lies in the selection of inappropriate learning methods, in which teachers ask students only to memorize the forms of the Javanese script. Understanding concepts involves complex cognitive processes that go beyond simply remembering information to connecting it to existing knowledge. The memorization method does not facilitate meaning-making, which is essential for students to internalize values and conceptual understanding. This condition results in a lack of enjoyable learning in Javanese script instruction. This condition contrasts with the need for Javanese-script learning to choose an enjoyable model to increase student interest.

Furthermore, limited learning resources and media are another contributing factor to students at SD 1 Padurenan's limited understanding of Javanese script concepts. Teachers who use only worksheets (LKS) and Javanese-language textbooks (*pepak basa Jawa*) demonstrate a lack of innovative, engaging, and supporting media, as the research team found. Using only worksheets and reference books can make learning passive and monotonous. This root of the problem ultimately gave rise to the paradigm among SD 1 Padurenan students that learning Javanese script is tedious and complicated. The low understanding of Javanese script in SD 1 Padurenan is a syndrome caused by teaching methods that remain teacher-centered, rote, and monotonous, as well as limited media, which cumulatively undermine students' interest and motivation to learn. This condition directly prevents the deep cognitive processing necessary to develop conceptual understanding, which should involve complex processes of remembering and connecting information. A paradigm shift to a more student-centered, fun, and interactive approach (joyful learning) is needed to increase student engagement and understanding.

This condition underscores the need for an innovative approach, such as the Joyful Learning principle, which emphasizes a fun, interactive, collaborative, and humanistic learning environment. Model selection is one solution to this problem. [Fardani et al. \(2023\)](#) stated that learning Javanese script requires selecting a fun learning model to foster students' desire to teach it. According to [Fardani et al. \(2023\)](#), when students' interest in learning has grown, they will find it easier to understand the material taught by their teachers. The principle of joyful learning, which emphasises fun and interactive learning, is expected to solve this problem.

Joyful learning focuses on creating a fun environment where students feel involved and excited to learn. High learning interest can encourage students to be more active in learning, increasing understanding and retention of information. Applying joyful learning in learning Javanese script can provide students with a more interesting learning experience. By integrating games, music, and art into learning, students are expected to understand better and remember the Javanese script.

The basic principles of joyful learning include active involvement, collaboration, and relevant context. Active student participation in the learning process can improve their understanding of the material. Student collaboration can also create a more enjoyable learning atmosphere. For example, group projects that allow students to work together to complete tasks can increase their sense of ownership of learning. By providing relevant context, students can see real applications of their learning, which increases their interest and motivation. [Hayes \(2007\)](#) stated that students who learn using the joyful learning approach develop stronger critical thinking skills and greater creativity. A study found that a positive learning environment can improve students' academic performance by up to 20% ([Clark & Mayer, 2008](#)). This shows that joyful learning is not just a method, but also an effective strategy in achieving educational goals. Based



on the problems outlined above, this study aims to determine the effectiveness of the joyful learning principle in improving grade 4 elementary school students' understanding of Javanese script concepts.

Several previous studies have addressed this issue. [Fardani \(2023\)](#) and [Wardana et al. \(2022\)](#) conducted research implementing a Teams Games Tournament in Javanese script learning. The results of these three studies indicate that the Teams Games Tournament model improves students' reading and writing skills in Javanese script. Furthermore, the successful implementation of the Teams Games Tournament model not only improves students' reading and writing skills but also fosters a more engaging and interactive learning environment. This approach can be very beneficial in overcoming the challenges posed by traditional teaching methods, which often fail to capture students' interest in learning Javanese script.

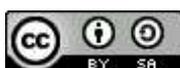
Similar research was also conducted by [Widodo & Hanifah \(2020\)](#), who developed and integrated game-based learning media to improve students' Javanese script reading skills. The use of game-based learning media has proven effective in increasing students' interest and understanding of the Javanese script. The use of game media helps avoid repetition of problems and makes the learning process more effective. Recent research by [Susilowati & Sukoyo \(2025\)](#) applied the principle of joyful learning to Javanese language learning. The application of the joyful learning principle in a lesson increases student motivation and makes the class more enjoyable. A pleasant learning environment will increase student interest and confidence in learning.

The gap between this study and previous studies lies in the lack of specific evidence regarding the combined application of Joyful Learning principles, embodied through the TGT Model and the Snakes and Ladders Javanese Script media, and the provision of positive feedback to effectively improve elementary school students' understanding of Javanese Script concepts. The novelty of this study lies in the integration and proof of the effectiveness of a specific Joyful Learning intervention package: TGT, culturally relevant Snakes and Ladders Javanese Script media, and the provision of feedback, which shows a significant increase in the understanding of Javanese Script concepts in fourth-grade elementary school students.

This study provides empirical evidence on the effectiveness of the Joyful Learning approach (specifically the combination of TGT, snakes-and-ladders media, and feedback) in improving students' understanding of Javanese script concepts. Theoretically, this study contributes to pedagogy that advocates a shift from conventional memorization methods to more engaging approaches. Meanwhile, the practical benefit of this study is to provide teachers with an overview of integrating team games tournaments (AMS games tournaments) with the principles of joyful learning to address challenges in learning Javanese script.

RESEARCH METHODS

This study used a quantitative, pre-experimental research design with a one-group pretest-posttest. This type of research aims to compare the condition of an object before and after receiving treatment ([Rukminingsih et al., 2020](#)). This study was conducted at SD 1 Padurenan with all 17 fourth-grade students as subjects. The sampling technique in this study used saturated sampling, with all 17 students included in the sample. The data collection technique used a test instrument comprising 10 multiple-choice and five essay questions. The 15 questions were created based on indicators of understanding the concept of Javanese script, including translating, interpreting, grouping, comparing, and giving examples. In addition to the test technique, this study also used interviews and documentation to obtain an overview of the location and research subjects' conditions. All research instruments, ranging from teaching modules to test questions and observation sheets, were validated by experts in Javanese language materials. Previously, the pre- and posttest data were tested using prerequisites, including a normality test to assess the normality of the data. Furthermore, the data were analyzed using the N-Gain test to determine the increase in understanding of the concept of Javanese script among grade 4 students at SD 1 Padurenan after treatment using the joyful learning principle.



RESULTS AND DISCUSSION

Elementary education is a crucial stage in forming the foundation of students' knowledge and character. One of the critical competencies taught at the Elementary School (SD) level, especially in the Java region, is mastery of the Javanese script. However, in the field, learning Javanese script is often considered difficult, boring, and uninteresting for students, especially in early grades such as grade 4. The complexity of letter shapes, the differences in writing rules from those of the Latin alphabet, and the lack of engaging learning approaches pose challenges for teachers and students (Widiarti & Adji, 2024). Therefore, innovative and effective learning strategies are needed so that students can properly absorb this material without diluting its essence.

One approach considered capable of improving elementary school students' understanding of Javanese script concepts is the application of the principle of joyful learning, or fun learning. Joyful learning is not just about making students feel happy, but creating an active, meaningful learning atmosphere that supports the child's psychological development. This principle emphasises humanistic, communicative, and interactive learning, enabling students to be emotionally and intellectually engaged in the learning process. Joyful learning is an educational approach that emphasises creating a joyful learning environment to increase student motivation and engagement. In the context of learning Javanese script, the principles applied in this study include educational games such as Javanese script snakes and ladders, game-based learning models, and icebreakers to relax students during the learning process, thereby maintaining students' focus on learning.



Figure 1. Students Learn to Read Javanese Script Using Snakes and Ladders Media

From [Figure 1](#), it can be seen that students are enthusiastic about learning Javanese script using the Snakes and Ladders media. They play Snakes and Ladders in pairs. In each number box, there is a word card for them to read. They are challenged to solve the words or sentences in the word cards so that they can continue the Snakes and Ladders game. The student who reaches the finish line the fastest without leaving any Javanese script readings is the winner. After the treatment, students' understanding of the concept of Javanese script increased. Data on the value of understanding the Javanese script for grade 4 students at SD 1 Padurenan are presented in [Table 1](#).

Table 1. Recapitulation of Javanese Script Concept Understanding Values Pre and Posttest

No	Information	Pretest Score	Posttest Score
1	Average Value	50	82,49
2	Maximum Score	66	95
3	Minimum Score	35	70
Difference between posttest and pretest scores			32,49

The table above shows that the average pretest score is 50, and the posttest score is 82.49. Based on the recapitulation, the value of understanding the concept of Javanese script for grade IV students of SD 1 Padurenan is higher after the implementation of the joyful learning principle in Javanese script learning than without it. Furthermore, a normality test was conducted on the pretest and posttest data to assess their normality. The results of the normality test for the pretest data on understanding the concept of Javanese script for grade 4 students of SD 1 Padurenan showed a significance value of 0.101, and the posttest score showed a significance value of 0.247, indicating that both were usually distributed. Furthermore, the data can be analysed using the N-Gain test to determine the increase in understanding the concept of Javanese script of grade 3 students of SD 1 Padurenan before and after the implementation of the principle of joyful learning. The results of the N-Gain test are shown in [Table 2](#).

Table 2. Results of the N-Gain Test of Students' Understanding of Javanese Script Concepts

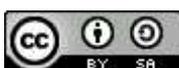
	N	Minimum	Maximum	Mean	Std. Deviation
N-Gain	17	.49	.87	.6564	.11801
Valid N (listwise)	17				

The table above shows that the average N-gain value of students' understanding of the concept of Javanese script is 0.6564. Thus, it can be concluded that applying the principle of joyful learning in learning Javanese script can improve grade IV students' understanding of the concept of Javanese script at SD 1 Padurenan. The findings clearly show that applying the principles of Joyful Learning significantly improves grade IV students' understanding of the Javanese script at SD 1 Padurenan. The substantial increase in posttest scores, coupled with moderate N-Gain values, provides strong evidence to support the success of this pedagogical approach. Students are interested in participating in Javanese script learning after the principle of joyful learning is actualised through the Teams Game Tournament learning model and the Javanese script snake-and-ladder media. Using these game models and media is a special attraction for students who want to study the Javanese script seriously. Studies show that students are more motivated and interested in learning when game elements are applied in their learning ([Nadieem et al., 2023](#); [Mohandas & Mohapatra, 2025](#)).

This study is very much in line with contemporary educational psychology. Student interest in learning is an important determinant of academic success. Emphasised that applying creative methods in learning increases student interest, which directly supports our findings. Furthermore, ([Díaz et al., 2020](#)) underlined the relationship between high learning interest and superior academic outcomes, reinforcing the importance of increased student engagement. The positive emotional and cognitive engagement fostered by Joyful Learning clearly contributes to increased focus and active participation, leading to better retention and understanding. Emotionally engaged students are more motivated to attend class and participate ([Cronqvist, 2024](#)). This condition will certainly affect students' ability to absorb the material being taught.

The increase in understanding of Javanese script reflects the effectiveness of the joyful learning principle in facilitating complex cognitive processes. [Filiyanda et al. \(2024\)](#) highlighted that conceptual understanding is closely related to existing knowledge; an engaging learning environment must support this condition. When students memorise and actively create meaning, their ability to apply knowledge in new situations, such as translating Latin script into Javanese script, increases rapidly. Our observations reinforce that a pleasant learning atmosphere correlates with increased cognitive processing and application. Factors such as learning methods, classroom conditions, and the overall atmosphere significantly impact student motivation and comfort; these conditions are directly proportional to the quality of the process and the results of student understanding ([Wedi et al., n.d.](#)).

Implementing Joyful Learning through the Teams Games Tournament (TGT) model, equipped with Javanese script snake-and-ladder game media, is important for this improvement. [Fauziyah & Anugraheni \(2020\)](#) stated that the TGT model positively influences thematic learning in elementary schools, especially in fostering critical thinking. The competitive yet collaborative nature of TGT, combined with fun media, creates an environment that supports active learning and shared motivation ([Fardani et al., 2023](#)). This approach addresses the historical problem of



monotonous conventional teaching methods that often reduce student enthusiasm and hinder effective learning (Sukoyo et al., 2023).

Furthermore, strategically integrating “ice-breaking” activities within the Joyful Learning framework is instrumental. Hariyadi et al. (2022) confirmed that these activities effectively relieved tension, refocused students’ attention, and increased interactivity. These short, engaging breaks transformed a potentially boring Javanese script lesson into a dynamic, enjoyable experience, fostering positive emotional states essential to effective learning. Schmidt (2019) and Li et al. (2020) explain the deep connection between emotion and cognition, stating that positive emotions significantly affect attention, memory, and motivation—all essential components of the learning process. The happiness, engagement, and enthusiasm observed by students directly translated into increased material absorption and improved conceptual understanding.

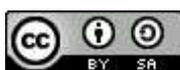
The collaborative aspect inherent in the Snakes and Ladders game also aligns with established pedagogical best practices. Students working in pairs to solve Javanese script puzzles make learning more enjoyable and hone their social and communication skills (Fianti et al., 2020; Hidayatulloh & Ashoumi, 2022). Kanchana & Cherukuri (2024) emphasise how collaborative activities, such as discussion forums, deepen understanding by allowing students to share diverse perspectives. This social interaction component of Joyful Learning fosters a supportive peer environment, which further enriches the learning experience.

Consistent positive feedback, exemplified by “thumbs up” praise, is a powerful motivational tool. Katsura et al. (2020) highlighted how positive reinforcement, such as cheers, significantly increased student motivation and engagement. This direct recognition of effort and success will likely stimulate further participation and continued interest in mastering Javanese script among students. Positive feedback in the form of praise when students succeed in reading Javanese script provides encouragement for students to continue learning to understand Javanese script material (Widiarti & Adji, 2024; Purwanti & Hardika, 2023; Rukayah et al., 2022).

The successful implementation of Joyful Learning in this study has several important implications for educational practice, particularly in preserving and teaching local languages and cultural heritage. First, the findings strongly suggest a pedagogical shift from traditional rote memorisation to more engaging, student-centred approaches, especially for materials often considered challenging or less interesting to students, such as Javanese script. Many engaging learning approaches are highly effective in helping students learn difficult material rather than memorising it (Selvakumar et al., 2025; Sia et al., 2024). The substantial increase in interest and understanding suggests that when learning is fun, students become proactive participants rather than passive recipients of information. This implies that curriculum developers and educators should prioritise integrating fun, interactive, and collaborative activities into lesson plans, moving beyond textbook-centred instruction.

Second, this study highlights the important role of emotional engagement in the learning process. The increase in students’ happiness, enthusiasm, and active participation during the fun Javanese script learning session underscores that a favorable emotional climate facilitates cognitive absorption and retention. Students with positive emotions are more likely to engage in self-regulated activities essential to effective problem-solving and learning (Chen et al., 2023). The impact of positive emotions on learning can depend on task difficulty. Positive emotions can significantly improve performance on simpler tasks, whereas their effects can vary on more challenging tasks (Chen et al., 2023; Li et al., 2020; Decarli et al., 2025). This has profound implications for teacher professional development, which should emphasize strategies that foster emotional well-being and positive affect in the classroom. Teachers must understand how to create an emotionally supportive environment where students feel safe to explore, make mistakes, and celebrate success.

Third, the effectiveness of the TGT model combined with game-based media provides a concrete example for designing effective learning interventions. Educators can adapt this model, or similar cooperative learning strategies, to various subjects, especially those that require mastery of concepts and active practice. Using culturally relevant game media, such as the Javanese script snake-and-ladder game, also demonstrates the great potential for integrating local content to make



learning more meaningful and enjoyable. This approach utilises cultural content to make learning more relevant and interesting, increasing motivation and positive attitudes towards learning (Permana et al., 2021). This encourages the development of learning resources that are contextually appropriate and aligned with students' cultural backgrounds (Nadeem et al., 2023).

Fourth, the sustained engagement observed through "ice-breaking" activities implies that strategically placed micro-interventions can significantly impact students' attention and motivation. Ice-breaking can help reduce feelings of isolation and increase social integration, which is critical for student satisfaction and academic performance (Hariyadi et al., 2022; Wiranti et al., 2024). This has practical implications for classroom management and lesson timing, suggesting that incorporating short, energising activities can prevent disconnection and maintain a dynamic learning atmosphere throughout the lesson.

Finally, this study confirms the importance of immediate and positive feedback. Feedback plays a vital role in language learning, serving cognitive and emotional functions (Qun, 2025; Al-Obaydi et al., 2023). Students generally prefer detailed feedback that highlights the positive and negative aspects of their work without damaging their self-esteem (Lipinska, 2021). By providing timely and constructive feedback, teachers can support students in their language acquisition journey, helping them achieve greater proficiency and confidence in their language abilities (Fernández-Michels & Fornons, 2021). This implication goes beyond mere praise; it encourages educators to develop systematic ways of recognising students' efforts and progress, ranging from verbal affirmations to tangible rewards or peer recognition systems. Such feedback is essential for building students' self-efficacy and fostering a growth mindset (Hidi & Renninger, 2006).

In addition, this study aligns with best practices in education that advocate student-centred pedagogy, active learning, and the integration of technology and games in the classroom. Hayes (2007) championed "Playful Teaching and Learning," highlighting its role in fostering critical thinking and creativity, a point further reinforced by Clark & Mayer (2008), who provided evidence-based guidelines for effective learning environments. The use of game-based learning, exemplified by the Javanese Snakes and Ladders game, is a widely recognised best practice for making abstract concepts tangible and engaging, especially for younger learners. This approach shifts the learning process from passive reception of facts to an active, experiential journey, critical for deep understanding and skill development.

This study also contributes to the discourse on developing "21st century skills" in education, particularly communication and collaboration. The TGT model and group activities within the Joyful Learning framework inherently promote these skills, preparing students with subject-specific knowledge and important interpersonal competencies needed for future success. These broader impacts underscore the holistic benefits of implementing such a pedagogical approach.

CONCLUSIONS AND SUGGESTIONS

After implementing the principles of joyful learning, the understanding of the Javanese script among grade IV students at SD 1 Padurenan increased. This increase is evident in the N-Gain value of 0.6564. The implementation of the principles of joyful learning is evident in the use of the Teams Games Tournament learning model and the Javanese script snake-and-ladder media. In addition, providing positive feedback to students is an important part of joyful learning, as it stimulates students to be actively involved in learning Javanese script, thereby increasing their understanding of the concept.

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