



Problematics of Learning Javanese Script And Alternative Solutions: A Literature Review

Yusuf Nur Kholiq¹, Endang Nurhayati¹, Purwadi¹

¹Master of Javanese Language Education, Faculty of Languages, Arts and Culture, Universitas Negeri Yogyakarta, Indonesia

*Correspondence to: yusufnur.2024@student.uny.ac.id

Abstract: Various problems are still encountered when learning a Javanese script in schools. These problems need to be known so that alternative solutions can be found. This study aims to 1) describe the problems of learning Javanese script and 2) identify possible solutions to the problems of learning Javanese script. This study is a literature study. The research data is information about the problems of learning Javanese script. The sources of literature studies in this study are journal articles accessed through Google Scholar, Research Gate, and Scopus. The data analysis technique in this study used the content analysis technique. The technique for checking the validity of this study used the theory triangulation technique. The results of this study showed that there were six problems in learning Javanese script. From an internal perspective, the problems are students not memorizing Javanese script, low motivation, students' perception that Javanese script is difficult, and low intensity of Javanese script use. From an external perspective, the problems of learning Javanese script are limited Javanese script teaching resources and Javanese script teaching that is still conventional. Alternative solutions to these problems are using relevant learning media, methods, and learning models based on student characteristics, making it a habit, and instilling meaningful understanding. The results of this study can be used as a guide for teachers in identifying and overcoming difficulties in learning Javanese script.

Keywords: javanese script, learning Javanese, problematics, solutions

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INTRODUCTION

Javanese is a local content-based subject taught from elementary to high school (Maesyaroh & Insani, 2021; Nurfita & Sukoyo, 2024). This subject is only taught in the provinces of Central Java, East Java, and the Special Region of Yogyakarta (DIY). Javanese language learning aims to form students with Javanese personalities. In line with this, Latifah (2019) and Kurnianda et al. (2024) argue that Javanese language learning is expected to improve students' language skills and appreciation of Javanese culture. Arafik and Rumidjan (2016) also explain that Javanese language learning aims to form students who know themselves and their environment, apply it to their cultural etiquette, and appreciate their nation's potential. Therefore, the quality of Javanese language learning must continue to be improved.

According to the Decree of the Head of the Education and Culture Office of Central Java Province Number 423.5/04678 Concerning Guidelines of Local Content Curriculum for Javanese Language for Elementary and Secondary Education Levels in Central Java Province, Javanese language learning focuses on three aspects, namely language, literature, and Javanese script. These three aspects are the wealth of the Javanese people's heritage that must be preserved. Besides emphasizing these three focuses, Javanese language learning is also oriented toward four language skills: reading, writing, speaking, and listening (Kholiq & Sukoyo, 2023; Kurniawan et al., 2020). This aims to ensure that students understand cultural values and apply language skills in their daily lives. Therefore, students need to master these skills. One of the materials taught in Javanese language subjects is Javanese script. Learning Javanese script aims to preserve the invaluable culture (Insani et al., 2024; Ramadani & Huda, 2020). Learning Javanese script also allows students to write and read Javanese script capably (Nuraseh et al., 2023). Learning Javanese script at each level is studied each semester and integrated with writing and reading elements. According to Widodo and Hanifah (2020), the ability to write and read Javanese script is an important aspect that must be mastered. Students can apply these skills to read and write the Javanese script for specific needs. In addition, learning Javanese script provides meaningful understanding in the form of a sense of belonging and pride in their culture.

The reality in the field shows that learning Javanese script is still very far from what is expected (Hastutik, 2015; Sukoyo et al., 2019). Students consider that studying the Javanese script is not relevant to the development of the times (Insani & Mulyana, 2019; Rachmadina & Mulyani, 2023). According to Darihastining et al. (2023) and Sukoyo et al. (2021), learning Javanese script is also still taught in a monotonous way. The teacher enters the class, explains the material related to Javanese script, and then students do assignments. This method shows that the student's motivation is still low (Aisah & Alsa, 2016). This is exacerbated by the

stigma of hereditary sins of Javanese language teachers who have never taught Javanese script thoroughly. Until now, students' learning achievement in Javanese script learning is still relatively low (Astutik et al., 2020; Febrianti & Insani, 2023). This learning achievement tends to be the same at elementary, junior high, and high school levels. Research by Rahma and Setyawan (2023) shows that the average value of Javanese script learning achievement is only 53. Rohmah and Rondli (2023) explain that 52% of students have not completed Javanese script learning. These findings indicate that students' outcomes in Javanese script learning are still far from what is expected. Therefore, Javanese script learning outcomes teachers need to be improved.

The results of Javanese script learning cannot be separated from the problems of Javanese script learning. Problematics are problems that have not been revealed until the proper scientific investigation and method are carried out (Zulfa et al., 2023). Javanese script learning problems are problems or issues that are encountered after an investigation is carried out in Javanese script learning. The problems of learning Javanese script come from two factors, namely internal factors consisting of students and external factors such as teachers, environment, and family (Fadilla et al., 2021; Fatmawati et al., 2021). Internal factors of learning Javanese script include student interests, motivation, and perceptions, while external factors can include the teacher's teaching methods and the material delivered (Azka, 2019). Both factors play an important role in learning. Therefore, the problems of learning Javanese need to be overcome.

The problems of learning Javanese script must be overcome through appropriate and relevant solutions (Nisa et al., 2021; Laubaha et al., 2022). Teachers can create innovative, fun, and student-centered learning. These efforts can be implemented by using relevant learning models, methods, strategies, techniques, approaches, and media according to the characteristics and needs of students. Innovative learning can be realized through interactive digital media, such as script learning applications, educational games, and tutorial videos that attract students' interest (Renaningati et al., 2024). In addition, a contextual approach that links script material to local culture and students' daily lives can make learning more meaningful and easier to understand (Aini et al., 2023; Lopa et al., 2024). By integrating creativity and a student-based approach, teachers can create a fun learning atmosphere and make students feel actively involved and motivated to learn Javanese script. These solutions ensure learning relevant to students' needs to master Javanese script more effectively and sustainably. Javanese language teachers' understanding of the problems of learning Javanese script is essential because teachers have a key role in determining teaching effectiveness and student success. Teachers can design more appropriate and relevant strategies to overcome these obstacles by understanding the obstacles. This understanding also helps teachers provide appropriate teaching methods, such as a contextual approach linking material to local culture or using digital technology to attract students' interest. Thus, a deep understanding of the challenges in learning Javanese script enables teachers to provide more effective learning and encourage the preservation of Javanese script among the younger generation.

Many studies have been conducted previously on the problems of Javanese script and its possible solutions. Praheto and Utomo (2020) examine the transliteration method to improve the ability to read Javanese script in the Elementary School Teacher Education study program. Hapsari et al.'s (2022) study examines the effectiveness of mobile-based Javanese script writing learning media on student achievement. Ramadhansyah et al. (2022) examine the problems of teaching Javanese in managerial, individual, and social problems. Sari et al.'s (2024) study examines the ability to write Javanese script in grade IV students of SD 4 Gondangmanis, Bae District, Kudus Regency, which shows that students' Javanese literacy skills must be improved. Previous studies have primarily examined efforts to improve the ability to read and write Javanese scripts through field studies. None of these studies have examined the problems of learning Javanese script and their solutions. This research will be different from this research because it uses data in the form of information regarding the problems of learning Javanese script at the elementary, middle, and high school levels contained in scientific articles. This research will fill the research space related to the problems of learning the Javanese language and Javanese script.

Based on the description above, research needs to be carried out regarding the problems of learning Javanese script and possible solutions through a literature review. The novelty of this research is the in-depth identification of the specific challenges faced by students and teachers in learning Javanese script in the digital era. This research describes the problems in general and explores innovative solutions by considering technological developments, such as the use of digital-based interactive learning media. This study aims to 1) describe the problems of learning Javanese script and 2) identify possible solutions to the problems of learning Javanese script. Practically, this research is useful for guiding teachers in identifying and overcoming the difficulties in learning Javanese script. This research can also be a reference for schools in designing a more effective teaching system that follows the needs of students. Theoretically, this research is useful for enriching studies in the Javanese language education field, especially in learning Javanese script.

METHODS

This research is a literature study research sourced from journal articles. Literature study research collects and critically analyzes scientific papers and relevant bibliographic sources to solve specific research problems (Febriyanti et al., 2024). The steps of this literature study research were adapted by the EPPI-Centre (2007) such as 1) Setting the scope, 2) searching the studies, 3) Screening studies to ensure they fit the scope of the review, 4) describing and mapping, 5) Synthesizing study findings, and 6) making conclusions and recommendations. The research data is in the form of information regarding the problems of Javanese script learning at elementary, junior high, and high school levels contained in scientific articles. This data determines the problems of learning Javanese script at various levels. The sources of literature studies in this study are journal articles accessed through Google Scholar, Research Gate, and Scopus with categories 1) publication period of the last 7 years (2018-2024), 2) journals have DOI and ISSN and have been indexed nationally and internationally, 3) using Indonesian or English, 4) articles discuss learning problems, Javanese script, and solutions related to learning problems. The data analysis technique in this study used content analysis techniques. According to Bungin (2019), the strategic stages of conducting content analysis are 1) finding symbols/keywords, 2) classifying data, and 3) analyzing data. The technique for checking the validity of this study used the theory triangulation technique. Theory triangulation uses several theories to discuss the problems. The theories used are the theory of learning problems and the Javanese script.

RESULT AND DISCUSSION

The qualitative analysis of this study shows that the problems of learning Javanese script include two aspects, namely internal and external problems. Internal problems include 1) students do not memorize the Javanese script, 2) low motivation of students to learn the Javanese script, 3) Perception of students who consider the Javanese script difficult, 4) Low intensity of Javanese script use, while external problems include 1) limited learning resources, 2) learning is still conventional. The problems of learning Javanese script, both internal and external, require a solution.

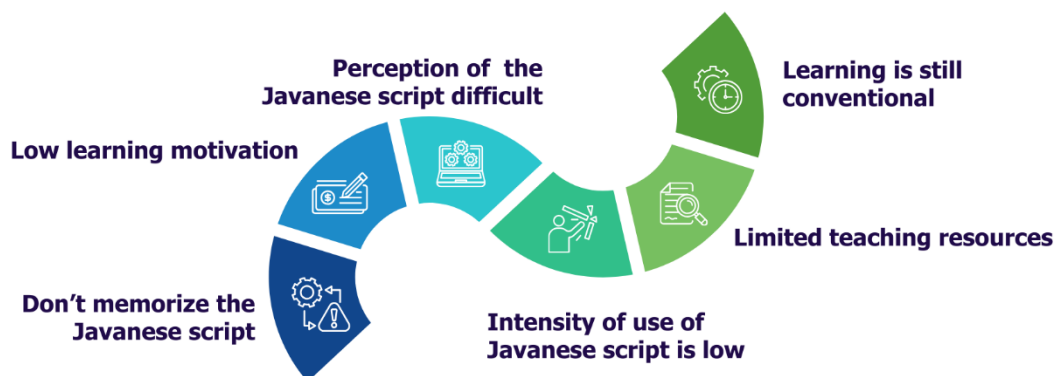


Figure 1. Flowchart of Javanese script learning problems

Further interpretation of the above results is thematically categorized into several discussion topics. It should be emphasized that the possible solutions to each problem can be almost the same. These solutions manifest innovative, fun learning, adapting to student characteristics, and siding with students. The main requirement or prerequisite that students must possess and master before learning Javanese script is to memorize or understand the form of Javanese script. However, in reality, many students still have not memorized the basic form of Javanese script or other elements. Rahma and Setyawan (2023) state that many students still do not memorize Javanese script. Avianto and Prasida (2018) also argue that many students still do not memorize the Javanese *carakan* or the basic form of Javanese script. The problem related to students who do not memorize the form of Javanese script is a fundamental problem that is often encountered in learning Javanese script. This problem tends to recur from elementary, junior high, and high school levels. Issues that should have been resolved at the elementary school level are often found at higher levels, such as high school. This is a frightening specter known as a hereditary sin from Javanese language teachers to other Javanese language teachers at a higher level or class.

Javanese script has a unique form, making it difficult for students to memorize it (Alfiah, 2017). Javanese script is divided into six, namely *carakan*, *pasangan*, *sandangan*, *murda*, *rekan*, and numeral scripts. Each script has its form and function. The most important aspect or element that is the basis for learning Javanese script is understanding or memorizing the *Carakan* script. When students have memorized the *carakan* script, students will easily learn other forms. Conversely, students who do not understand or memorize the Javanese script will

have difficulty studying *pasangan*, *sandangan*, *murda*, and rekan because *carakan* underlies other scripts. Problems related to the difficulties of students who do not understand or memorize the Javanese script hinder learning. Teachers must repeat the study from the most essential aspects even though the outcomes of Javanese script studying at a higher level will be different from a lower level. This is inefficient, considering the limited time spent learning Javanese scripts each semester. Therefore, students need to understand and memorize Javanese script.

Motivation is an important aspect of successful learning. Student motivation to learn the Javanese script is still so low. Joeniarni and Mulyoto (2022) state that students' interest in learning Javanese script is still low. Kusumodestoni et al. (2023) also state that students' interest in learning Javanese script tends to decline. The low motivation of students to understand a Javanese script is one of the main problems that hinders the effectiveness of the learning process. It is because of the perception that Javanese script is less relevant to daily needs and life (Mukhlisin & Nakti, 2020). Javanese script is considered not to contribute directly to the skills needed in the workplace or further education. Technology and foreign languages are becoming more dominant in this modern era, so many students feel that learning Javanese scripts does not directly benefit their future (Khoirunnisa & Huda, 2023). Therefore, students are less enthusiastic about learning Javanese scripts, eventually affecting their learning outcomes. Low learning motivation is also influenced by minimal support from the surrounding environment, family, and society (Puspitasari, 2017). When Javanese script is not considered important in students' social environments, they tend not to see the value in learning it (Widiarti & Adji, 2024). This unsupportive environment further emphasizes the opinion that the Javanese script is ancient and useless. This results in student motivation being very low.

Until now, many students still think the Javanese script is a difficult material (Nimah et al., 2023). The students' perception that Javanese scripts are difficult material is one of the main problems in learning Javanese in schools. This view often arises because the Javanese script has divergent characteristics from the Latin alphabet used in everyday Indonesian (Asrianti & Fauziah, 2023). Students are faced with unfamiliar letter forms, a large number of letters, and special rules in writing, such as the use of *sandhangan* and *pasangan*. According to Windarti (2021), students often consider Javanese script difficult and confusing, mainly because of the complexity of the letter forms and the rules for their use. This complexity makes students struggle to memorize writing, read, and understand texts written in Javanese script. Learning Javanese script requires mastery of complicated techniques compared to learning the Latin alphabet, where each letter has a clear form and function (Tanuwijaya et al., 2023). In contrast, Javanese script requires students to understand variations of forms based on the context of their use, such as in the use of *sandhangan* to mark vowels. This further strengthens the perception that Javanese scripts are complicated to master. Silviarista et al. (2017) state that many students find it challenging to adjust to the Javanese script's writing and reading patterns, which are very different from the Latin alphabet. The influence of negative perception is very significant in learning. When students struggle with the materials, they tend to lose interest and motivation to learn, leading to low learning outcomes (Ningsih & Hayati, 2020). The perception that Javanese script is difficult material creates a negative cycle. Students feel burdened before they understand or try to learn it well.

The low intensity of Javanese script use among students is one of the significant problems in script learning. The Javanese script, which used to be an important part of communication and literacy in Javanese society, is now rarely used in everyday life Puspitoningrum (2018), so it causes students do not have adequate opportunities to practice and deepen their skills in writing and reading Javanese script. Until now, students have only used Javanese scripts when learning Javanese scripts at school, and after that, students no longer use them. According to Sari et al. (2024), the minimal use of Javanese script in the environment gives students few opportunities to improve their skills, so learning this script at school becomes more difficult. Students who rarely or never use Javanese script outside the classroom tend to experience a decline in mastery of the material they have learned. When Javanese script is only used in an academic environment without any support from the broader social or cultural environment, students are not motivated to practice what they have learned Rinata et al. (2023). They may only do assignments or exercises given at school without really integrating Javanese script into their daily lives. Low use of Javanese script outside the classroom results in students not feeling the need or interest in practicing it. Eventually, it results in a decline in their skills and understanding. The impact of the low intensity of Javanese script use is significant in learning. When students do not have the opportunity to use Javanese script in meaningful contexts, they tend to forget the material they have learned or never master it well. Low use intensity also reduces students' confidence in writing and reading Javanese script because they never have enough experience to feel comfortable using this script. Students who rarely use Javanese script outside of class tend to have difficulty learning in class because they lose their sense of familiarity and connection with the script.

Until now, most Javanese script learning in schools still relies on less varied textbooks. Many teaching resources used in schools are not designed for the various individual characteristics of students, such as learning abilities, cultural backgrounds, and different learning styles (Wiranti & Sutriyani, 2020). Teaching materials that

are too generic or one-size-fits-all are often ineffective in meeting diverse learning needs. According to [Yati et al. \(2023\)](#), teaching resources that do not pay attention to individual differences in students disturb the learning process because students cannot adjust the material to their respective learning speeds and abilities. The available teaching resources are also often less adaptive in dealing with the varying levels of difficulty experienced by students. Until now, most Javanese language teachers still use *pepak* as the only learning resource ([Wulandari et al., 2018](#)). This causes some students to feel stressed because they have difficulty understanding the material, while others are bored because challenges do not exist ([Naufal et al., 2024](#)). Research by [Gulvara et al. \(2023\)](#) shows that the mismatch between the teaching material's difficulty level and students' abilities results in ineffective learning. In addition, teaching materials are often not adapted to students' cultural context and daily lives. The lack of relevance between teaching materials and students' experiences and environments makes Javanese script feel far from their lives. As a result, students tend to feel that the Javanese script is old and irrelevant, so their interest in learning decreases. In addition to the problem of relevance, many teaching resources still use traditional learning methods that do not follow the learning styles of modern students.

Javanese language teachers still teach Javanese script conventionally ([Avianto & Prasida, 2018](#)). Teachers tend to use the lecture method so that students are less interested and encounter many difficulties ([Maryana et al., 2021](#)). This method usually relies on textbooks, blackboards, and teacher lectures, focusing mainly on memorizing the script's form and the rules for writing it. This learning process tends to be passive, where students only receive information without much active involvement. According to [Yulianto \(2011\)](#), this memorization-based approach does not provide opportunities for students to associate Javanese script with more relevant contexts in everyday life, so many students consider this material outdated. One of the main weaknesses of the conventional method is the lack of variation in the delivery of the material ([Adawiyah, 2021](#)). Teachers tend to use a monotonous approach, such as requiring students to write Javanese script repeatedly on the board or exercise book without involving creative or interactive activities. According to [Nikmah et al. \(2023\)](#), this method often makes students feel bored and less motivated to learn. As a result, many students can write scripts mechanically without understanding the rules of grammar or scripts in more depth. Conventional methods are also often limited to simple learning media, such as textbooks and blackboards ([Sari et al., 2021](#)). This media does not offer a dynamic and interactive learning experience, which should help students better understand and appreciate the wealth of Javanese script. In addition, static print media is not enough to meet the learning needs of students in the digital era, where they are more familiar with interactive visual and digital media. It shows that conventional methods are less able to answer the challenges of learning in the modern era that demands a more creative and contextual approach.

In addition, teachers who teach using conventional methods often focus on rigid assessment standards, such as written tests that only measure students' ability to write and read scripts. It limits the development of students' critical and creative skills because they are not invited to think deeply about the context of Javanese script in culture and everyday life. [Langgi and Hakim \(2021\)](#) added that conventional methods also tend to be less adaptive to variations in student abilities, where students who are slow to understand the alphabet are often left behind because there is no adjustment of teaching methods to meet individual needs. Several literatures in this study offer various alternative solutions to the problems of learning a Javanese script. First, an alternative solution that can be implemented is using learning media. Research by [Febrianingrum and Wiranti \(2023\)](#), [Walidah and Sukartono \(2024\)](#), [Widhiarto \(2020\)](#), [Cahyaningrum et al. \(2024\)](#). Research by [Febrianingrum & Wiranti \(2023\)](#) and [Wiranti & Sutriyani \(2020\)](#) can increase the understanding of Javanese script and *sandhangan* through puzzle media. This alternative solution is considered very appropriate and relevant to the research subjects of elementary school students who are closely related to game-based learning. This media can make learning more interesting, fun, and not boring. Research by [Walidah and Sukartono \(2024\)](#) shows that letter card media can help students learn Javanese script easily and quickly. The alternative solution is considered appropriate because it is implemented at the Elementary School level with the characteristics of students who like games. This media makes students more involved in learning, enjoy, enthusiastic, and motivated to learn Javanese script. [Widhiarto \(2020\)](#) shows that Cawan media (Chatting WhatsApp Android) can improve students' abilities in learning Javanese script and minimize errors in the *nglegena* script. This alternative solution is considered relevant to the characteristics of students at the secondary school level who are closely related to technology because of its practical nature. This media can motivate students to continue learning Javanese script, primarily through digital media. Research by [Cahyaningrum et al. \(2024\)](#) has successfully developed interactive Javanese script learning media based on multimedia. This media is considered very appropriate for the characteristics of students with various learning styles and is closely related to the use of technology in learning. Second, an alternative solution to the problems of learning Javanese script is implementing relevant learning models and methods. The use of appropriate learning models and methods needs to pay attention to the characteristics of students so that Javanese script learning can be successful based on research by [Syahputri et al. \(2024\)](#), [Lestari et al. \(2024\)](#), [Hartina et al. \(2024\)](#), dan [Joeniarni and Mulyoto](#)

(2022). Research by [Syahputri et al. \(2024\)](#) implemented the Team Games Tournament (TGT) learning model successfully improved Javanese script writing skills. The Team Games Tournament (TGT) model can improve indicators of the integrity of Javanese script writing, clarity of Javanese script forms, and neatness of the Javanese script writing. In addition, the model also increases student involvement and concentration. This model is considered to be an alternative solution to the problems of learning Javanese script. Research by [Lestari et al. \(2024\)](#) successfully improved Javanese script reading and writing skills using the quantum learning method. This method has been proven to be effective because of its nature, which sharpens understanding and memory through the implementation of fun and motivating learning. [Hartina et al.'s \(2024\)](#) research successfully increased students' comprehension and motivation towards Javanese script through game-based learning. This method effectively improves learning outcomes and provides a fun learning experience. [Joeniarni and Mulyoto's \(2022\)](#) research successfully increased students' interest and achievement in learning to write Javanese script. This method is effective because it encourages students to work together and actively participate in learning.

Third, an alternative solution to the problem of learning Javanese script is habituation and instilling meaningful understanding for students. Accustoming students to Javanese script can be done through literacy. Literacy is a person's ability to use potential and skills in processing and understanding information when reading and writing ([Oktariani & Ekadiansyah, 2020](#)). Literacy habituation in the context of Javanese script means habituation to reading and writing Javanese script. According to [Naja et al. \(2023\)](#), literacy can increase students' reading motivation and literacy skills and improve language skills. [Hastuti and Lestari \(2018\)](#) also state that literacy can improve reading skills, increase knowledge, and strengthen the foundation to understand, analyze, and reflect information well. Research by [Puspitoningrum \(2018\)](#) and [Hulaimi and Aziz \(2021\)](#) implements literacy to improve mastery of specific scripts or letters. [Puspitoningrum \(2018\)](#) implemented literacy to increase the ability to read Javanese script. The literacy sources in the study were designed to be more contextual and interesting and provide meaningful understanding for students. The habit of literacy is considered effective in improving students' mastery of Javanese script. In addition, students can also learn independently. [Hulaimi and Aziz \(2021\)](#) have implemented literacy to accelerate the ability to read and write Latin letters. This method is considered effective in increasing students' interest in reading. When reading the sentence Iqro' method, it will come to mind that it is a method of learning how to read *hijaiyah* letters so that children can read the Qur'an well. In addition to the habit of literacy, solutions to the problems of learning Javanese script can also be done by instilling meaningful understanding in students. Meaningful understanding means the benefits that students will get and the contribution of students to learning Javanese script. Teachers can introduce a meaningful understanding of Javanese script in the form of preserving Javanese culture, the ability to solve problems related to the use of Javanese script in society, and the economic value of Javanese script in the future. Thus, students will be more motivated.

CONCLUSION

There are several problems in learning Javanese script in schools. From an internal perspective, these problems are students not memorizing the Javanese script, low student motivation, students' perceptions that the Javanese script is difficult, and low intensity of using the Javanese script. From an external perspective, the problems in learning Javanese script are limited sources of Javanese script teaching and Javanese script teaching that is still conventional. Alternative solutions to these problems are using relevant learning media, methods, and models following the characteristics of students, making habits, and instilling meaningful understanding. Practically, this research is useful for guiding teachers in identifying and overcoming the difficulties in learning Javanese script. This research can also be a reference for schools in designing a teaching system that is more effective based on the needs of students. Theoretically, this research is useful for enriching studies in Javanese language education, especially in learning Javanese script.

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