# Analysis of the Needs of Elementary School Students in Learning Lontara Script

Mirfan<sup>1</sup>, Muhammad Yaumi<sup>1</sup>, Erwin Akib<sup>1</sup>

<sup>1</sup>Universitas Muhammadiyah Makassar, South Sulawesi, Indonesia

Corresponding author e-mail: mirfan@handayani.ac.id

Article History: Received on 18 August 2024, Revised on 19 October 2024, Published on 7 December 2024

**Abstract:** Learning the Lontara script in elementary schools still faces various obstacles, especially in terms of less interactive teaching methods and limitations of interesting learning media. Conventional methods such as lectures and writing exercises in books are often less effective in improving student understanding. This study aims to analyze the learning needs of the Lontara script with a Visual, Auditory, and Kinesthetic (VAK) approach to better suit the learning characteristics of students. The research method used is qualitative descriptive, with data collection techniques through observation, interviews, and questionnaires to students and teachers in elementary schools. The results showed that 40% of students have visual learning styles, 35% auditory, and 25% kinesthetic, so learning media that accommodates these three learning styles is needed. The visual approach can be applied through infographics and animation, auditory through songs or voice narratives, and kinesthetics through writing exercises based on digital technology. The conclusion of this study confirms that the integration of the VAK approach in learning the Lontara script can increase the effectiveness and interest in learning of students. Therefore, it is recommended to develop technology-based learning media, such as augmented reality (AR) and digital applications, to create learning that is more innovative, interactive, and in accordance with the times.

Keywords: Augmented Reality, Lontara Script, Needs Analysis, VAK

### A. Introduction

The Lontara script is a cultural heritage that has high historical value for the Bugis-Makassar people. As one of the traditional scripts in Indonesia, its existence is increasingly eroded by the development of the times and the lack of use in daily life (Aisyah et al., 2024). In the educational environment, especially in elementary schools, learning the Lontara script has not received adequate attention. Many students do not have basic skills in reading and writing this script. In addition, the limitation of interesting and interactive learning resources is the main obstacle in the learning process (Padang, 2018). If there are no efforts to preserve and innovate in the teaching methods, it is feared that the Lontara script will be increasingly abandoned by the

younger generation. Therefore, it is necessary to analyze the needs of students so that learning Lontara Script can be more effective and in accordance with the development of the times (Hamriani et al., 2022).

One of the main challenges in learning Lontara Script is the low interest and motivation of students (Nugraha & Mansoor, 2022). Many students find this script difficult to learn because of its different form from the Latin alphabet they are used to. In addition, the learning materials available are still limited, both in the form of textbooks and digital media (Mujahidah et al., 2023). Teachers who teach often face obstacles in delivering material due to the limitations of learning methods and resources that can attract students' attention. For this reason, it is necessary to conduct research that can identify factors that affect the low interest of students in learning the Lontara Script. By understanding the existing barriers, more effective solutions can be developed to improve the quality of learning and student involvement in the learning process (Purnama et al., 2024).

Along with technological developments, digital-based learning is increasingly being applied at various levels of education. However, in the context of learning the Lontara Script, the use of technology is still very minimal. The lack of interactive applications or technology-based media that can help students understand this script is one of the main obstacles. Meanwhile, conventional learning approaches are often less appealing to students who are growing up in the digital age (Fitria, 2022). Therefore, the use of technology such as Augmented Reality (AR) and VAK (Visual, Auditory, Kinesthetic)-based learning methods can be a solution to increase the effectiveness of learning Lontara Script (Supriyadi et al., 2023). By integrating technology into the learning process, students will be more motivated and able to understand the material in a more fun and interactive way.

In the elementary school curriculum, local content has an important role in introducing local culture and wisdom to students. However, the position of learning Lontara Script in the current curriculum is still not optimal (Muhammad & Angraini, 2023). Many schools do not have a specific policy regarding the teaching of this regional script, so the learning is often only supplementary and not sustainable. In fact, with clear policies and innovative learning methods, students can better get to know and appreciate their own culture. Therefore, research on the analysis of students' needs in learning Lontara script is very important to provide an overview of the best strategies in teaching it (Gusal et al., 2023). With this analysis, it is hoped that recommendations can be obtained that can support the implementation of Lontara Script learning more effectively in elementary schools.

This research aims to identify the needs of students in learning the Lontara script and find solutions to improve learning effectiveness. By understanding the aspects that are obstacles, it is hoped that learning methods and media can be designed that are in

accordance with the characteristics of elementary school students. In addition, this research also aims to encourage the preservation of the Lontara script through technology-based education. With the right approach, learning the Lontara script can become more interesting, effective, and in accordance with the times. Through innovations in learning methods, it is hoped that the younger generation will not only know but also be able to use the Lontara script in their daily lives. Thus, this cultural heritage can continue to be preserved and not lost to the development of the times.

This research has novelty in the approach and method used in analyzing the needs of students in learning Lontara Script. In general, this study integrates the Augmented Reality (AR) technology approach with VAK (Visual, Auditory, Kinesthetic) learning methods to improve students' understanding. In addition, this research not only identifies the obstacles faced by students in learning Lontara Script, but also offers interactive media-based solutions that can be applied in the elementary school environment. Thus, this research is expected to make a real contribution to the development of more innovative and effective learning methods. Through the use of modern technology, learning Lontara Script can become more interesting, easy to understand, and relevant to the needs and characteristics of today's digital generation.

# **B.** Methods

This study uses a qualitative descriptive approach combined with descriptive quantitative analysis to provide a more comprehensive picture of the needs of students in learning Lontara Script (Sriwahyuni & Eliza, 2024). Data collection techniques were carried out through observation, in-depth interviews, and questionnaires based on the Likert scale. This study involved 15 elementary school students from three schools in Gowa Regency, as well as 10 regional language teachers who teach the Lontara script.

Observations are carried out in the classroom to observe teaching strategies, student engagement levels, and the effectiveness of methods used by teachers. Semi-structured interviews were conducted with teachers and principals to identify the obstacles and support needed in learning the Lontara Script. In addition, questionnaires based on the Likert scale of 1-5 are used to measure the interest, comprehension, and challenges students face in learning this script. The quantitative data obtained were analyzed using descriptive statistics (average and percentage) to provide an objective picture of the level of students' understanding of the Lontara Script.

To increase the validity and reliability of the data, this study uses triangulation techniques by comparing the results of observations, interviews, and questionnaires. In addition, a reliability test of Cronbach's Alpha was carried out on the questionnaire to ensure the consistency of the data obtained. With this method, the results of the

study are expected to have a high level of confidence and provide accurate insights into the learning conditions of the Lontara script in elementary schools.

# C. Results and Discussion

Based on the results of observations and interviews with teachers, it was found that learning the Lontara script in elementary schools still faces various obstacles. The methods used are still conventional, such as lectures and writing exercises in books, which are less appealing to students. In addition, the limitations of interactive learning media cause students to have difficulties in recognizing, memorizing, and writing the Lontara script correctly. The results of the questionnaire showed that the majority of students felt that the existing methods were less attractive, with 60% having difficulty recognizing the scripts, 75% feeling bored with the current learning methods, and 85% preferring an approach that involves images, sounds, or hands-on activities. This indicates the need for the development of learning media that is more innovative and in accordance with the learning characteristics of students.

A needs analysis based on the Visual, Auditory, and Kinesthetic (VAK) approach showed that 40% of students had visual learning styles, 35% auditory, and 25% kinesthetic. Students with visual learning styles understand Lontara script better through attractive pictures and colors, while auditory students are easier to remember scripts if they are accompanied by songs or voice narrations. Meanwhile, kinesthetic students understand letters faster through hands-on practice, such as writing using digital media or role-playing in learning. These results confirm that existing learning methods have not fully accommodated the learning needs of students, so a VAK-based approach can be a solution to increase the effectiveness of learning the Lontara script.

Based on these findings, the Lontara script learning strategy needs to be improved by integrating technology and VAK-based approaches. Visual approaches can be applied through infographics, animations, and augmented reality (AR)-based media to clarify the shape of the characters. Auditory approaches can utilize voice recordings, educational songs, and interactive narratives to help students remember characters more easily. The kinesthetic approach can be implemented through writing exercises using tablets or digital boards as well as motion-based educational games. By implementing this strategy, learning the Lontara script is expected to be more effective, interesting, and in accordance with the needs of students, so that it can contribute to efforts to preserve the Lontara script among the younger generation.

### **D.**Conclusions

Based on the results of the research, it can be concluded that learning the Lontara script in elementary schools still faces various obstacles, especially in terms of less

interesting teaching methods and limited interactive learning media. The majority of students have difficulty in recognizing and memorizing the Lontara script because the methods used are still conventional. The results of the analysis show that the Visual, Auditory, and Kinesthetic (VAK) approach can be an effective solution to improve students' understanding by adjusting learning strategies according to their learning style (Suaib & Sutriyani, 2024).

The identification of student learning styles revealed that 40% have visual learning styles, 35% auditory, and 25% kinesthetic, so learning media that can accommodate these three learning styles is needed in a balanced manner. Visual approaches can be done through infographics and animation, auditory through songs or voice recordings, and kinesthetics through writing exercises using digital technology. By applying this approach, learning the Lontara script can become more interesting, easy to understand, and more effective in improving students' skills in reading and writing the cultural heritage script.

# E. Acknowledgement

With full gratitude, we praise and gratitude to the presence of Allah SWT for the grace and convenience given so that this research can be completed properly. We would like to thank the Universitas Muhammadiyah Makassar, especially the supervisors and examiners in the Doctoral Program of Education who have provided valuable guidance and knowledge. We would also like to express our gratitude to the elementary schools, teachers, and students who participated in this research. The support from fellow graduate students and their beloved families has been invaluable in completing this study. Hopefully this research can contribute to the world of education, especially in the preservation and development of technology-based Lontara Script learning. Constructive criticism and suggestions are highly anticipated for the refinement of this research.

### References

- Aisyah, S., Niza, A. K., & Purnamasari, F. (2024). Proceedings of the Asian Academic Collaboration Forum (AACF) PKM Exploration of Shibori Technique and Lontara Script Motifs on T-Shirts for Guidance Studio in Kuala Lumpur Malaysia. 1(1), 30–34.
- Fitria, T. N. (2022). Utilizing Text-to-Speech Technology: Natural Reader in Teaching Pronunciation. *JETLEE: Journal of English Language Teaching, Linguistics, and Literature*, 2(2), 70–78. https://doi.org/10.47766/jetlee.v2i2.312
- Gusal, T. P., Sudarmin, S., & Subali, B. (2023). Development of Integrated Science Microlearning Learning Media with Lontara Bugis Local Wisdom Based on Responsive Website Design (RWD). *Journal of Science Education Research*, 9(SpecialIssue), 1194–1208.
  - https://doi.org/10.29303/jppipa.v9ispecialissue.4024

- Hamriani, Usman, Sunarsi, D., & Munna, A. S. (2022). Measuring Students' Aptitude in Writing Makassar Lontara' Script Using Card Letters Media. *International Journal of Language Education*, 6(4), 412–422. https://doi.org/10.26858/ijole.v6i4.26128
- Muhammad, I., & Angraini, L. M. (2023). Student Learning Interest in the Use of Augmented Reality Media on Triangles and Quadrilaterals. *Mathematics and Learning*, 11(1), 32–49. https://doi.org/10.33477/mp.v11i1.4299
- Mujahidah, Hidayat, W., Dj, M. Z., & Ishak. (2023). Development of an English module based on Bugis' local wisdom. *JOALL* (*Journal of Applied Linguistics and Literature*), 8(2), 454–487. https://doi.org/10.33369/joall.v8i2.27894
- Nugraha, A. A., & Mansoor, A. Z. (2022). Designing Educational Games as Learning Media for Lontara/Bugis Script for Children 7-8 Years old Memory Game with Aksara Lontara Content. *Journal of Games, Game Art and Gamification*, 06(02).
- Padang, S. (2018). Design Of Educational Media Introduction The Lontara Script Of Makassar For The Age Of 6-8 Years. 1–10. http://eprints.unm.ac.id/10196/
- Purnama, A. D., Aminah, S., Kareba, A. M., & Harmilawati. (2024). The Effectiveness of Using Lontara Bugis Makassar Script in English Vocabulary Teaching. *JLE: Journal of Literacy of English Education Study Program*, 5(1), 49–61. https://doi.org/10.47435/jle.v5i1.2283
- Sriwahyuni, E., & Eliza, D. (2024). Project-Based Learning E-Modules Improve Science Literacy Skills and Character on Minangkabau Cultural Themes. *Indonesian Journal of Education*, 13(2), 383–392. https://doi.org/10.23887/jpiundiksha.v13i2.75873
- Suaib, M., & Sutriyani, W. (2024). The Effectiveness of Using Assemblr Edu Application Media Based on AR (Augmented Reality) on Understanding the Concept of Elementary School Geomatry 3D. 5(3), 190–196. https://doi.org/10.30596/ijems.v5i3.21018
- Supriyadi, E., Juandi, D., Turmudi, T., & ... (2023). Augmented reality in mathematics education: A bibliometric analysis utilizing the scopus database. *Journal on Mathematics Education Research*, 4(1), 25–71. https://ejournal.upi.edu/index.php/JMER/article/view/65081%0Ahttps://ejournal.upi.edu/index.php/JMER/article/download/65081/25361