Educalingua
International Conference
FPBS UPGRIS

The Implementation of Multimedia Learning on Elementary Students' Achievement in English Alphabet at SD Negeri 062 Mompang Jae

Riski Rahmadani Nasution
Department of English Language Education, State College of Islamic Studies Mandailing Natal, Indonesia, nasution041103@gmail.com

Resdilla Pratiwi
Department of English Language Education, State College of Islamic Studies Mandailing Natal, Indonesia

ABSTRACT

This study investigates the implementation of multimedia learning in teaching the English alphabet to fifth-grade students at SD Negeri 062 Mompang Jae, a semi-urban elementary school with limited technological infrastructure. Grounded in Mayer's Cognitive Theory of Multimedia Learning, which holds that people learn more effectively from words and pictures presented together than from words alone, this qualitative descriptive study aimed to describe how multimedia tools were implemented in classroom instruction and how they influenced students' achievement. Data were collected through classroom observation, interviews with the teacher and students, documentation, and questionnaires, then analyzed using Miles and Huberman's interactive model of data reduction, data display, and conclusion drawing. The findings show that multimedia learning was implemented through three stages, namely introduction, practice, and reinforcement, using alphabet videos, images, audio pronunciation, and songs. Students demonstrated improved recognition, pronunciation, and spelling of English letters, along with increased motivation and classroom engagement, although some students still lacked confidence in individual speaking. The study implies that multimedia learning can be implemented effectively even in resource-limited schools, provided teachers receive adequate training and schools provide basic supporting facilities.
Keywords: achievement, alphabet, elementary students, English, multimedia learning

Introduction

The twenty-first century has brought a major transformation in education through the integration of technology. Teaching and learning are no longer limited to textbooks and blackboards but have expanded into digital and multimedia-based approaches. According to Mayer (2001), multimedia learning refers to learning from words and pictures, and his Cognitive Theory of Multimedia Learning emphasizes that people learn better when information is presented both verbally and visually rather than through words alone, because the dual visual and auditory channels enhance understanding and memory retention.

In the context of English language teaching, multimedia plays a vital role in motivating students and making abstract language elements more tangible, particularly at the elementary level where learners are still developing their cognitive and linguistic skills. Clark and Mayer (2016) argue that multimedia integration promotes active learning, strengthens comprehension, and improves long-term retention, transforming the English alphabet from a sequence of letters into an interactive and enjoyable experience. At SD Negeri 062 Mompang Jae, teachers have begun using multimedia tools such as PowerPoint slides, educational videos, and interactive games to teach the English alphabet, helping students associate letters with sounds and words through visual and auditory cues.

Nevertheless, not all teachers are equally adept at integrating multimedia effectively; some encounter technical issues, lack training, or have limited access to suitable resources, and students' responses toward multimedia learning can vary, with some showing enthusiasm while others experience distraction. Previous studies have demonstrated that multimedia enhances students' achievement: Hapsari (2022) found that alphabet songs, digital flashcards, and interactive games increased both recognition and retention of letters, while Rahman (2023) reported that multimedia-based instruction made students more confident, motivated, and engaged. However, despite these positive outcomes, little is known about how multimedia learning is implemented in rural or semi-urban schools such as SD Negeri 062 Mompang Jae, where infrastructure and teacher training remain limited. This gap in the literature signifies the importance of the present research.

Therefore, this study aims to describe in depth the implementation of multimedia learning in teaching the English alphabet at SD Negeri 062 Mompang Jae and to analyze how it influences students' achievement, by observing classroom practices, interviewing teachers and students, and analyzing supporting documents. The findings are expected to contribute valuable insights to the improvement of English language education for young learners in Indonesian elementary schools, particularly those operating with limited technological resources.

Methods

This research employed a qualitative descriptive design, which according to Creswell (2014) seeks to understand phenomena based on participants' experiences and perspectives. The study was conducted at SD Negeri 062 Mompang Jae, a public elementary school in North Panyabungan, Mandailing Natal, North Sumatra, Indonesia, during the second semester of the 2025 academic year, focusing on the twenty-five fifth-

grade students of Class 5A and their English teacher. The school was chosen purposively because it has begun adopting multimedia-based approaches in English teaching while still facing infrastructural and training challenges.

Primary data were obtained from the English teacher and students through interviews and classroom observation, while secondary data consisted of lesson plans, multimedia teaching materials, student worksheets, and classroom documentation. Data were collected through three main techniques: classroom observation, in which the researcher acted as a non-participant observer to capture authentic teaching and learning interactions; interviews with the teacher and students to explore their experiences and perceptions of multimedia use; and documentation of lesson plans, media files, and student work. A questionnaire was also distributed to a sample of students to obtain supporting quantitative information about their perceptions of the learning process.

The trustworthiness of the data was ensured following Lincoln and Guba's (1985) framework of credibility, transferability, dependability, and confirmability, achieved through triangulation of observation, interview, and documentation data, member checking with the teacher, and thick description of the research context. Data were analyzed using Miles and Huberman's (1994) interactive model, comprising data reduction, data display, and conclusion drawing and verification, in which observation notes, interview transcripts, and documentation were coded, organized into themes, and interpreted to answer the research question.

Findings and Discussion

Observation findings revealed that the teacher implemented multimedia learning through three main stages: introduction, practice, and reinforcement. In the introduction stage, alphabet videos and images were used to introduce the letters from A to Z, helping students recognize letter shapes and associate them with sounds. In the practice stage, audio pronunciation and alphabet songs guided students in pronouncing letters correctly, both together and individually. In the reinforcement stage, students practiced spelling simple English words such as names and numbers. Interview data supported these observations, as the teacher reported that multimedia made abstract concepts easier to explain, reduced students' boredom, and increased classroom participation, as summarized in Table 1.

Table 1. Interview Results with the English Teacher

No	Interview Question	Teacher's Response	Interpretation
1	Why do you use multimedia in teaching the English alphabet?	Multimedia helps students understand letters faster and makes learning more interesting.	Multimedia increases motivation and comprehension.
2	What types of multimedia do you usually use?	Videos, alphabet songs, pictures, and audio pronunciation.	Various media address different learning styles.
3	How do students respond to multimedia learning?	Students are more active and enthusiastic.	Multimedia encourages engagement.
4	Do you face challenges in using multimedia?	Sometimes technical problems occur, but they can be managed.	Challenges exist but do not hinder learning significantly.

Regarding students' achievement, most students were able to recognize English letters from A to Z after multimedia-based instruction, distinguish vowels from consonants, and pronounce and spell simple English words correctly, as confirmed by their worksheets and by questionnaire responses in which most students agreed or strongly agreed that they could recognize, pronounce, and spell English letters. Students were also highly engaged during multimedia activities, particularly alphabet songs and videos, and reported feeling more comfortable learning English through these media, although some remained hesitant to pronounce letters individually in front of the class. Of the ten students who completed the supporting questionnaire, seven (70%) expressed clear agreement that multimedia learning helped them, while three (30%) responded less positively, mainly regarding confidence in speaking individually.

These findings indicate that multimedia learning played an important role in improving students' achievement in learning the English alphabet, supporting Mayer's (2001) and Clark and Mayer's (2016) argument that combining visual and auditory stimulation enhances comprehension and retention for young learners. Students' high engagement also aligns with constructivist learning theory, which holds that students learn best when they actively participate in the learning process. However, the finding that some students still lacked confidence in individual speaking suggests that while multimedia strongly supports cognitive achievement and engagement, affective aspects such as self-confidence require continuous practice and teacher support, echoing Rahimi and Yadollahi's (2017) observation that successful multimedia integration also depends on adequate teacher preparation and follow-up.



Figure 1. Multimedia-based English Alphabet Lesson in Class 5A

Conclusion

This study concludes that the implementation of multimedia learning at SD Negeri 062 Mompang Jae, carried out through the introduction, practice, and reinforcement stages using videos, images, audio pronunciation, and songs, had a significant positive

effect on elementary students' achievement in learning the English alphabet. Multimedia learning improved students' recognition, pronunciation, and spelling of English letters while also increasing their motivation and engagement, creating a more active and enjoyable classroom atmosphere. A limitation of this study is that not all students showed the same level of confidence, as some remained shy when speaking individually, indicating that affective outcomes develop more slowly than cognitive ones. Teachers are therefore encouraged to combine multimedia with gradual, individualized speaking practice, while schools are recommended to provide adequate facilities and training to support optimal multimedia integration. Future research may extend this study to other grade levels or larger samples, and may examine the long-term effects of multimedia learning on students' English achievement and confidence.

References

Amelia, R. (2019). The effect of digital storytelling on English alphabet learning. Journal of English Education Studies, 6(2), 45–53.

Asher, J. (1977). Learning another language through actions: The complete teacher's guidebook. Sky Oaks Productions.

Bloom, B. S. (2019). Taxonomy of educational objectives: The classification of educational goals. Longman.

Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative Research Journal, 9(2), 27–40. https://doi.org/10.3316/QRJ0902027

Clark, R. C., & Mayer, R. E. (2016). E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning (4th ed.). Wiley.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.

Dewi, L., & Kusuma, P. (2020). The influence of multimedia-based instruction on students' motivation in English learning. Journal of Language and Education Innovation, 3(1), 22–30.

Farida, N. (2021). Developing students' English pronunciation through multimedia learning. International Journal of Language Pedagogy, 2(1), 14–25.

Gilakjani, A. P. (2017). A review of the literature on the integration of multimedia in English language teaching. International Journal of English Linguistics, 7(5), 95–106. https://doi.org/10.5539/ijel.v7n5p95

Handayani, T. (2022). Interactive alphabet games for young learners' English learning. Journal of Digital Learning for Education, 5(2), 68–77.

Hapsari, D. (2022). Utilizing multimedia to enhance vocabulary and alphabet recognition among young learners. Journal of English Teaching and Learning, 12(3), 144–153.

Hasanah, R. (2020). The impact of animated multimedia on early English literacy. Indonesian Journal of Early Childhood Education, 9(1), 55–64.

Jonassen, D. H. (1999). Designing constructivist learning environments. Educational Technology Publications.

Lestari, F. (2018). The effectiveness of video-based learning in teaching English alphabet to kindergarten students. Journal of Early Childhood Literacy, 1(2), 31–40.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications.

Linse, C. T. (2006). Practical English language teaching: Young learners. McGraw-Hill.

Mayer, R. E. (2001). Multimedia learning. Cambridge University Press.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook (2nd ed.). SAGE Publications.

Moreno, R. (2005). Multimedia learning with animated pedagogical agents. Educational Psychology Review, 17(2), 131–162. https://doi.org/10.1007/s10648-005-8136-5

Nugroho, A., & Hartati, S. (2019). The implementation of ICT-based media in teaching English for young learners. Indonesian Journal of EFL Education, 4(2), 101–112.

Putri, I. (2020). Improving students' motivation in learning English alphabet through interactive multimedia. Journal of Applied Linguistics and Literacy, 3(1), 12–21.

Rahimi, M., & Yadollahi, S. (2017). Challenges in using ICT in English language teaching. Journal of English Language Teaching and Learning, 9(19), 49–63.

Rahman, A. (2023). The role of multimedia in promoting active English learning among elementary students. Journal of English Education Research, 8(1), 77–88.

Richards, J. C., & Rodgers, T. S. (2014). Approaches and methods in language teaching (3rd ed.). Cambridge University Press.

Sari, N. (2021). The effect of multimedia-based learning on students' English alphabet mastery at SDN 101 Pekanbaru. ELT Journal of Educational Research, 6(1), 33–42.

Setiawan, D. (2023). Using multimedia applications to teach phonics and alphabet recognition. Asian Journal of English Language Teaching, 10(2), 99–109.

Sugiyono. (2018). Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif, dan R&D. Alfabeta.

Suharto, B., & Rahma, L. (2022). Interactive multimedia in teaching English for young learners: A case study. Journal of English Language and Education, 7(2), 85–93.

Susanto, M. (2021). Students' responses toward multimedia learning in English classes. Indonesian EFL Journal, 8(2), 113–120.

Wulandari, E. (2020). The effect of multimedia presentation on students' reading motivation. Journal of Language Teaching and Education, 5(1), 50–60.

Yunus, M. M., & Li, L. K. (2019). Bringing ICT to life in the English language classroom. Malaysian Journal of Learning and Instruction, 16(1), 1–25. https://doi.org/10.32890/mjli2019.16.1.1

Yunus, M. M., Hashim, H., & Embi, M. A. (2021). ICT integration in the teaching of English as a second language: Teachers' experiences. International Journal of Education and Development Using ICT, 17(4), 58–74.

Yusuf, M. (2019). Multimedia-assisted language learning for primary school students. TESOL International Journal, 14(3), 112–124.