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IMPLEMENTATION OF STORY-BASED ANIMATED VIDEO TO IMPROVE THE ABILITY TO DISTINGUISH SIMILAR LETTERS AMONG STUDENTS WITH LEARNING DISABILITIES IN AN INCLUSIVE ELEMENTARY SCHOOL

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ABSTRACT
This study aims to describe the planning, implementation, and evaluation of story-based animated video in improving the ability to distinguish similar letters (b-d, p-q, n-m) among a special needs student with learning disabilities in grade V of SDN 003 Telen. A descriptive qualitative approach with a single-subject case study design was used. The main subject was a grade V student with a learning disability, with the classroom teacher and parent as supporting data sources and learning documents as additional data. Data were collected through moderate participatory observation, semi-structured interviews, and documentation study, checked for trustworthiness through source and technique triangulation, and analyzed through data reduction, data display, and conclusion drawing. The results show that learning planning was arranged adaptively based on identifying student needs, selecting suitable video media, and designing simple, gradual learning steps. Implementation took place over eight sessions and showed progressive development, from hesitation in early sessions to greater independence and confidence in later sessions. An authentic, ongoing evaluation indicated improvement in distinguishing similar letters, with the b-d pair showing the most consistent progress, while p-q and n-m still required further practice. Beyond cognitive-visual gains, the student also showed affective development in engagement, courage, and learning motivation. The study concludes that story-based animated video is effective as an alternative learning medium for students with learning disabilities because it matches learning needs that are concrete, multisensory, and grounded in meaningful narrative context.

INTRODUCTION

Inclusive education in Indonesia affirms that every child has the right to receive educational services suited to their individual abilities and needs, including children with special needs (Ministry of Education, Culture, Research, and Technology, 2022). However, access to and the quality of services for children with disabilities in Indonesia remain fundamental problems. UNICEF (2020) reported that most children with disabilities have not yet obtained adequate access to education, and for those who are enrolled, the available support services are often still limited. Basic Health Research data from 2018 also indicate a gap in educational access for children with disabilities, even though the prevalence is

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relatively small (Syafiulia, 2026), and this condition is worsened by the lack of support for students with learning disabilities in regional inclusive schools, which contributes to high dropout rates (Novrizal, 2024).

One group of children with special needs commonly found in elementary schools is students with learning disabilities, that is, learners with normal or above-average intellectual potential who experience specific difficulties in processing information, particularly in reading and writing skills (Sunardi, 2018; Somantri, 2019). One of the most prominent difficulties is a low ability to distinguish letters with similar shapes, or reversal errors, such as b and d, p and q, and n and m, caused by limitations in visual discrimination and spatial orientation. This condition leads to confusion in reading and writing as well as overall academic delay. Nurfadhillah (2024) and Fauziyah (2025) emphasize that students with learning disabilities are better able to follow instructions when given a concrete, multisensory, and meaningfully contextualized approach.

The initial condition at SDN 003 Telen, an inclusive school in a remote area of East Kutai Regency, East Kalimantan, showed that reading instruction for students with learning disabilities was still dominated by conventional methods in the form of static letter drills and repeated writing exercises, while the use of creative media based on dynamic visual stimulation and narrative remained limited. A previous attempt to use simple instructional videos had been tried but was discontinued due to limited preparation time, the lack of systematic implementation guidance, and insufficient technical support, so that any improvement achieved did not continue consistently. This condition points to a gap between the need for concrete and contextual learning media and instructional practice that remains conventional, as well as a lack of empirical evidence on the effectiveness of narrative-based visual media in the context of regional inclusive schools.

Story-based animated video is considered a relevant strategy to address this gap, because it combines dynamic visual movement of letters with an engaging storyline, thereby creating a learning experience that is enjoyable, contextual, and multisensory. Various studies show that this medium is beneficial in improving visual discrimination, strengthening focus, increasing motivation, and helping students understand letter concepts through memorable narrative contexts (Susanti, 2022; Sari & Fitri, 2022; Fadilah, 2023). Even so, its application in reading instruction in regional inclusive schools, including at SDN 003 Telen, remains rare, and teachers need a clear implementation model as well as empirical evidence of its effectiveness for students with learning disabilities. Based on the above, this study aims to (1) describe the planning of the application of story-based animated video, (2) describe its implementation, and (3) analyze the evaluation of the application of story-based animated video in improving the ability to distinguish similar letters among students with learning disabilities in grade V of SDN 003 Telen.

RESEARCH METHOD

This study used a qualitative approach in the form of descriptive qualitative research with a single-subject case study design, aiming to describe the process of implementing story-based animated video in detail and naturally without manipulating variables (Moleong, 2021). This approach was chosen because the phenomenon under study is complex and contextual, and depends on the interaction between teacher, student, and classroom environment, making it more appropriately explored through rich description rather than hypothesis testing (Creswell, 2014; Lincoln & Guba, 1985).

The study was conducted at SDN 003 Telen, Muara Wahau Subdistrict, East Kutai Regency, an elementary school implementing inclusive education with limited technological facilities and without a Special Assistant Teacher (GPK). The main research subject was a grade V student with the initials ARB, male, 11 years old, with a learning disability who experienced consistent difficulty in distinguishing the letters b-d, p-q, and n-m. The classroom teacher, with the initials SC, and the student's parent, with the initials SP, served as supporting informants, while learning documents such as Lesson Plans (RPP), worksheets, and photographic documentation served as additional data sources.

Data were collected through three techniques: moderate participatory observation during instruction, semi-structured interviews with the classroom teacher and parent, and documentation study. The main research instrument was the researcher, assisted by an observation sheet and interview guide. Data trustworthiness was examined through source triangulation, by comparing data from the teacher, the parent, and observation results, and technique triangulation, by comparing the results of observation, interviews, and documentation. Data analysis followed the Moleong (2021) model, consisting of three continuous stages: data reduction, data display in the form of descriptive narrative and matrices, and conclusion drawing and verification through member checking and discussion with the supervisor.

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RESULTS AND DISCUSSION

Planning of Story-Based Animated Video Instruction

Learning planning was arranged systematically and centered on ARB's individual needs through four interrelated stages. First, the teacher identified the student's characteristics and needs through an initial assessment consisting of observation of reading activities, simple letter-recognition tasks, and a brief interview with the parent. The assessment results showed that ARB experienced consistent difficulty with the letter pairs b-d, p-q, and n-m, and easily lost concentration during conventional instruction, but was better able to focus when the material was presented through moving images and an engaging story. This finding aligns with Fauziyah's (2025) view that students with learning disabilities tend to have a visual-kinesthetic learning style, as well as Nurfadhillah's (2024) view that they need a concrete and repetitive approach.

Second, the teacher selected and prepared the animated video based on criteria of relevance of letter content, short duration (5-10 minutes), simple language, and clear, unconfusing visuals. Third, the teacher formulated learning objectives in two domains: cognitive-visual, namely the ability to distinguish at least four of the six similar letter pairs, and affective, namely the student's enthusiasm and courage in identifying letters. Fourth, the teacher designed gradual learning steps consisting of an opening activity (apperception), a core activity (video screening accompanied by brief discussion), and a closing activity (reflection and practice). This adaptive planning affirms that the effectiveness of animated video media does not stand alone, but depends on its fit with the student's individual characteristics and learning needs, as emphasized by Suhartono (2020) regarding the limited working memory of students with learning disabilities.

Implementation of Story-Based Animated Video Instruction

Instruction took place over eight sessions with a consistent sequence: an opening activity, screening of the story-based animated video, discussion and letter identification, and a closing activity in the form of reflection and practice. During the video-screening stage, the teacher applied the principles of concreteness and multisensory engagement by combining moving letter visuals with audio narration, which appeared to increase ARB's attention span from 5-7 minutes in the early sessions to 10-12 minutes by the fourth through sixth sessions. During the discussion and letter-identification stage, the teacher applied a pause-and-ask strategy along with selective repetition to strengthen understanding of the more difficult letter pairs, such as p-q and n-m. During the closing stage, the teacher consistently provided positive reinforcement for every student effort without emphasizing perfection of results, in line with Skinner's principle of positive reinforcement and Social Learning Theory, which stresses the role of positive response in building self-efficacy.

The development observed was progressive: in the first session ARB was still hesitant and required substantial verbal guidance, whereas in subsequent sessions he became braver, more independent, and more confident in identifying letters, even showing spontaneous responses such as pointing at the screen and naming letters unprompted. The teacher also adjusted seating position and task format according to ARB's ability; as the classroom teacher noted in an interview, placing the student near the screen helped maintain his focus throughout the activity. This developmental pattern is consistent with Dale's Cone of Experience and Paivio's Dual Coding Theory, which explain that dynamic audio-visual media produce more concrete understanding and stronger memory traces than static media, as well as with Vygotsky's concept of the Zone of Proximal Development regarding the teacher's scaffolding role through probing questions.

Evaluation of Instruction and Development of the Ability to Distinguish Similar Letters

Evaluation was conducted authentically and continuously across the eight learning sessions through direct observation, rather than through a single test at the end of the program. The evaluation results showed positive development in the ability to distinguish similar letters, with the b-d pair showing the most consistent improvement, as ARB began to distinguish this pair stably from the sixth session onward. Meanwhile, the p-q and n-m pairs still showed occasional errors up to the eighth session and required further practice. Beyond cognitive-visual development, the evaluation also confirmed affective development in the form of increased engagement, courage, and learning motivation, reflected in ARB's own initiative to ask for the video to be replayed and his new habit of retelling the letters he had learned to his parents at home.

Interview data with the parent reinforced these findings, indicating that ARB became more frequently self-initiated in learning, interested in seeking out story videos to practice distinguishing letters, and more open in communicating his learning progress at home. Parental support, in the form of accompanying the child while watching the video and giving the child opportunities to try reading independently, also contributed to this development, as emphasized by Pratiwi (2021) regarding the importance of adaptive learning planning that involves the home learning environment.

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General Findings and Discussion

Overall, this study identified five key points. First, story-based animated video increased the engagement and learning interest of students with learning disabilities in Indonesian language instruction. Second, this medium helped increase students' courage and confidence in attempting to identify letters without fear of making mistakes. Third, there was a genuine development in visual discrimination ability, particularly for the letters b-d. Fourth, the success of implementation was strongly influenced by the teacher's individual guidance throughout instruction. Fifth, parental support at home reinforced the achievements gained at school. On the other hand, this study also identified constraints, namely the student's concentration being easily distracted, limited assisting personnel due to the absence of a Special Assistant Teacher, and limited technological facilities such as laptops, projectors, and stable electricity at the school, which is consistent with the findings of Damayanto, Ishartiwi, Handoyo, and Purwandari (2021) regarding the still-suboptimal provision of assistive technology for children with specific learning difficulties in schools.

These findings reinforce the views of Susanti (2022) and Fadilah (2023) that story-based animated video is effective in improving the ability to distinguish similar letters among students with learning disabilities, while also extending prior studies such as Rahmawati (2019), Lestari and Nugroho (2020), and Pramudyani (2022) by showing how the alignment between the media's sequence, the principles of instruction for children with learning disabilities, and students' individual needs is the key to success, rather than the use of video media alone. This underscores the importance of teachers' pedagogical competence in designing strategies, media, and assessments suited to the characteristics of students with learning disabilities (Mumpuniarti, Handoyo, Phytanza, & Barotuttaqiyah, 2020).

CONCLUSION AND RECOMMENDATIONS

Based on the research results, it can be concluded that the planning for implementing story-based animated video was carried out adaptively by considering the characteristics and needs of students with learning disabilities, covering needs identification, selection of suitable media, and the design of simple, gradual learning steps. Implementation, carried out over eight sessions, showed progressive development from a hesitant attitude toward greater independence and confidence. Evaluation, conducted authentically and continuously, showed positive development in the ability to distinguish similar letters, with the b-d pair improving most consistently, while p-q and n-m still required further practice, accompanied by affective development in the form of increased engagement, courage, and learning motivation. Thus, story-based animated video is proven effective as an alternative learning medium for students with learning disabilities because it matches learning needs that are concrete, multisensory, and grounded in meaningful narrative context. It is recommended that teachers make this medium a regular part of reading instruction, that schools provide instructional technology facilities and consider providing a Special Assistant Teacher, that parents provide consistent learning stimulation at home, and that future researchers develop this study further with a larger number of subjects and a longer duration.

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