

The Use of Animated Video Media as Early Intervention in Teaching Writing Skills to Grade VII Students with Mild Intellectual Disabilities at SLB Putra Mandiri

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Abstract

In the current Generation Z era, the use of information technology-based media is still underutilized in special needs education, particularly for students with mild intellectual disabilities. Learning for students with such conditions will be more effective when supported by appropriate media that match their characteristics and needs. One potential solution is the use of animated digital video, which offers engaging visual and auditory stimuli to enhance students' concentration. This study aims to describe how animated video can be used as an early intervention tool to support writing skills development in Grade VII students with mild intellectual disabilities at SLB Putra Mandiri. The research employed a qualitative descriptive method to observe and analyze the impact of using animated videos during writing lessons. The results showed that the animated video media improved students' focus and engagement in the learning process. Students were more attentive and actively participated in writing tasks when animated videos were used. In conclusion, animated digital video media is proven to be an effective alternative learning tool that helps increase concentration and participation among students with mild intellectual disabilities during writing instruction.

Keywords: animated video, early intervention, writing skills, mild intellectual disabilities, learning media

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INTRODUCTION

Learning media are tools or intermediaries that support the teaching and learning process between teachers and students. These tools enable technology-based learning to take place effectively. In the current millennial era, many advanced and engaging IT-based media are available for educational purposes. One such tool is animated video, which can be effectively used as an educational medium for students with mild intellectual disabilities. According to Adawiyah et al. (2019), engaging and easy-to-understand media greatly assist the learning process, especially for students with special needs. Animated videos, which deliver information simultaneously through visual and auditory channels, can help improve students' memory and understanding. Interactive and colorful animations also capture students' attention and help them comprehend learning materials, particularly in developing visual literacy directly.

Children with special needs require specific educational services that differ from those provided to typical students. These children face challenges in learning and development, thus requiring education that is tailored to their individual learning needs (Pitaloka et al., 2022). One example is children with intellectual disabilities. These children face developmental challenges in both mental and intellectual aspects, which in turn affect their behavioral and cognitive development. Purbani (2015) describes intellectual disability as a condition characterized by below-average intellectual ability, also referred to as mental retardation. According to the

American Association on Intellectual and Developmental Disabilities (AAIDD), intellectual disability involves significant limitations in both intellectual functioning and adaptive behavior, typically associated with an IQ below 70.

Writing is a fundamental skill and a key component in education. Each child has a unique ability level, particularly children with special needs such as those with intellectual disabilities. These students face challenges in cognitive function, as indicated by below-average IQ scores, generally under 70, making it difficult for them to learn how to write. As a result, they often fall behind their peers (Widiastuti & Winaya, 2019). Writing, while a basic and essential language skill, is often easy for regular students but poses difficulties for those with intellectual disabilities. This is due to their cognitive impairments (such as limited perception, memory, and language), motor challenges (both fine and gross), and difficulties in social adjustment. Mental limitations that affect cognitive and social aspects also influence motor skills, ultimately affecting a child's ability to understand and use language effectively in daily life (Wahyuni, 2022). These students often struggle with reading comprehension, such as being unable to answer questions based on a text or explain the meaning of difficult words highlighting the connection between cognitive and language limitations (Liliani, 2016).

Learning media for students with intellectual disabilities must consider their unique needs, particularly cognitive limitations and difficulty processing abstract information. Effective media for these learners should present information at an appropriate level of complexity while balancing visual and auditory elements. Mayer's multimedia learning theory (2001) is crucial in this context. Mayer argues that delivering information simultaneously through both visual and verbal channels enhances learning. This approach improves comprehension and working memory capacity, especially for students who require concrete and multimodal instruction. Ruslan et al. (2024) also found that engaging and memorable animated characters can increase attention and learning interaction among children with intellectual disabilities. Therefore, using animated video as a learning medium is highly relevant for students with intellectual disabilities, as it provides dual sensory input, enhances concentration, and helps learners recall information more effectively.

In such educational contexts, teachers play a crucial role. As part of the language teaching process, teachers should understand and apply psycholinguistic theories. These theories guide the selection of instructional approaches by examining how the human brain processes language. According to Dardjowidjojo (2014), psycholinguistics focuses on four key areas: (a) comprehension the mental process of understanding spoken or written language; (b) production the mental process that enables speech; (c) neurological and biological foundations of speech; and (d) language acquisition the process by which children learn their native language.

Based on observations and interviews conducted by the researchers with seventh-grade students at SLB Putra Mandiri, several problems were identified regarding students' writing skills. These problems include: (1) difficulty combining syllables into words; (2) limited ability to write complete words or sentences; and (3) the absence of effective learning media to support reading and writing development.

To address these issues, the researchers proposed using animated video as an initial intervention to support writing skills development among seventh-grade students with mild intellectual disabilities at SLB Putra Mandiri. Animated video was chosen due to its ability to deliver information both visually and auditorily, making it easier for students to understand the material and focus on the learning process. Additionally, the engaging and interactive nature of animation can increase student motivation and help them recognize and recall letters, words, and sentences.

The researchers believe that animated video can serve as a useful starting point for improving writing skills in students with mild intellectual disabilities. This study is expected to help both teachers and students develop more creative and adaptive learning strategies that address the needs of students with special needs in inclusive or special education environments like SLB Putra Mandiri.

METHOD

This study employed a qualitative descriptive method. The data collected were in the form of words, images, and narratives rather than numerical or statistical data. The results of the data analysis were presented descriptively to provide a comprehensive understanding of the research subject (Rukajat, 2018). Descriptive

qualitative research does not merely present data as it is but also provides in-depth explanations of the characteristics and context of the studied phenomenon, making the results rich in meaning and contextually relevant (Anggito & Setiawan, 2018).

The qualitative descriptive method was chosen to describe how digital media in this case, animated video was used to support writing skills in a Grade VII student with mild intellectual disabilities at SLB Putra Mandiri. The primary data source in this study was a student identified as FZ (10 years old), a seventh-grade learner with mild intellectual disabilities who actively participated in writing activities using animated video media.

The main research data consisted of vocabulary written by the student during Indonesian language lessons. This written output was collected and analyzed as observable and measurable learning outcomes (Sugiyono, 2021). Data collection techniques included direct observation of teaching and learning activities, selection of the research subject, administration of writing tests, transcription of the student's written work, and data identification and analysis.

Observation was conducted by directly monitoring the learning activities of the student in the classroom. The next step was determining the research subject, followed by administering a writing test to assess the student's writing ability. After the test, the researcher transcribed the data and proceeded to the data identification phase.

Data were analyzed using descriptive qualitative analysis techniques, involving data reduction, data display, and conclusion drawing (Miles, Huberman, & Saldaña, 2018). The student's writing was analyzed to identify improvements in vocabulary usage, sentence structure, and word appropriateness. These findings were then interpreted within the context of the learning process.

RESULTS AND DISCUSSION

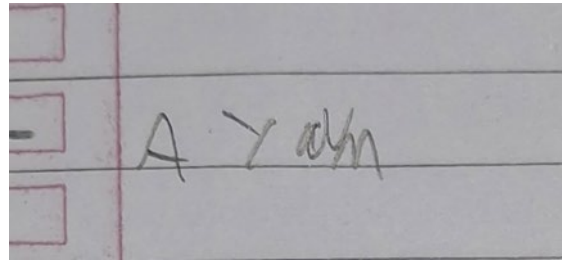
The animated video developed in this study effectively supported a seventh-grade student with mild intellectual disabilities at SLB Putra Mandiri in learning Bahasa Indonesia, specifically in the topic of Animal Reproduction. The interactive video featured various animals in motion, accompanied by sound effects that matched each action, which helped increase the student's attention and concentration during the learning process.

By presenting each animal image alongside a corresponding label, the student's writing skills showed improvement. The student received both verbal and visual instructions through the video to write the animal names based on the information displayed. The video's interactivity was designed to support a step-by-step learning process at a pace suitable for the student's ability. Features such as selectable buttons and automatic pauses allowed the student time to write. This method enabled the interactive animated video to serve as an engaging tool that encouraged active participation in learning to write.

The use of interactive animated video also supported the student's understanding and cognitive development. According to Purwaningrum (2017), enhancing cognitive skills in students with intellectual disabilities requires diverse methods and media that attract their interest in learning, such as interactive multimedia. This approach is particularly beneficial as students with mild intellectual disabilities typically need more time and repetition to remember and comprehend information. Hidayat and Haryanto (2020) found that interactive animated videos significantly aid special needs students in learning, as shown by their increased participation and improved ability to independently form words after using the media. As a result, using interactive animated video not only simplifies the learning process but also helps students with mild intellectual disabilities to develop literacy in a more enjoyable and meaningful way.

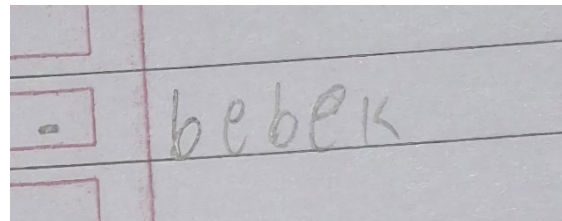
The following shows the results of the acquisition of writing skills of mildly disabled students after using interactive animated video media in learning.

Figure1 – Word: "Ayam" (Chicken)



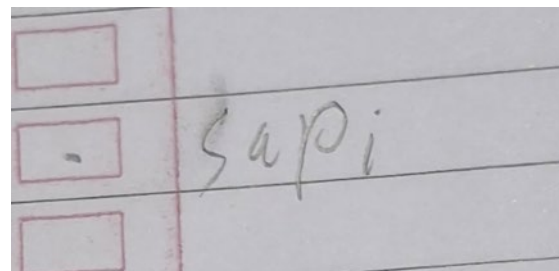
Based on the writing test, FZ was able to copy the word “ayam” completely, indicating a good recognition of letter shapes and sequencing. However, several issues were noted in terms of letter form and neatness. The first letter was capitalized ("A") while the rest were lowercase, indicating inconsistent understanding of capital letter usage. The letter “y” was disproportionate with an untidy tail, the second “a” was unclear and resembled another shape, and the letter “m” appeared unstable and oversized. Overall, the word was readable but lacked neatness and consistency, suggesting that the student still needs more practice in fine motor coordination, letter formation, and understanding the basic use of uppercase and lowercase letters.

Figure 2. – Word: "Bebek" (Duck)



FZ successfully copied all the letters in the correct order, demonstrating an understanding of the word structure. The letters "b" and "e" were fairly consistent and recognizable, although they appeared shaky with weak line pressure. The final letter "k" deviated slightly from the standard shape but was still identifiable. The student showed adequate ability to imitate letter forms, but further training is needed to improve line stability, pencil pressure, and letter proportionality on the writing baseline. The writing was mostly legible and showed progress, although fine motor skills still need to be developed for more refined and proportional writing.

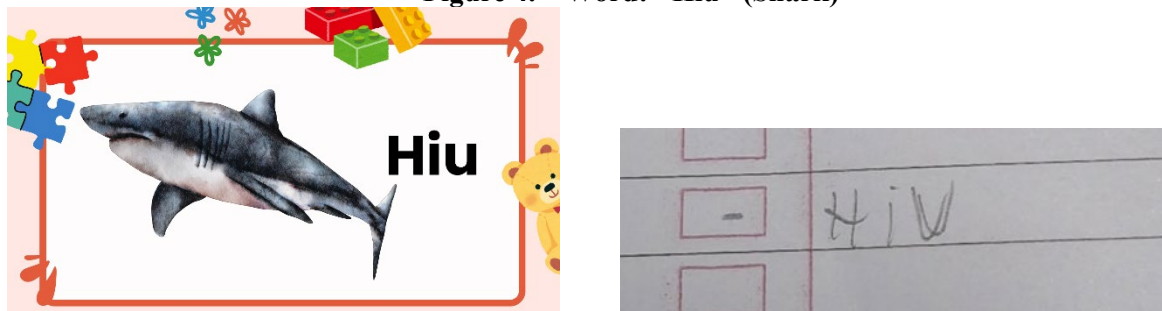
Figure 3. – Word: "Sapi" (Cow)



In the word “sapi”, FZ was able to copy all the letters in the correct sequence, indicating an understanding of the word form. However, there were still several aspects to consider, particularly regarding letter consistency and neatness. The letter “s” was too slanted and hung above the baseline. The letters “a” and “p” were written clearly, but the strokes were unstable. The “p” extended downward unevenly, and although the “i” was visible,

its dot was barely noticeable. Overall, the word was readable, but fine motor control was still weak, making the handwriting appear unbalanced and poorly proportioned. Additional practice is required to stabilize hand movement, maintain letter proportion, and ensure alignment on the writing line.

Figure 4. – Word: "Hiu" (Shark)



The result of the word “hiu” showed that FZ was able to write the complete word correctly. However, some areas still required attention. The letter “h” had a basic shape that was close to the standard, but it tilted to the right, indicating instability in fine motor control. The letter “i” included a dot, though it was placed too far from the base letter. The letter “u” was the most difficult for the student to write—its curve was insufficient, and the vertical stroke was too high compared to the other letters, making the entire word appear unbalanced. Overall, the word “hiu” was legible, but improvements were needed in shape accuracy and neatness. The use of animated video as an early intervention tool proved effective in helping FZ recognize and remember letter sequences while increasing motivation and attention during the writing process. However, further training is required to improve fine motor skills, letter shape consistency, and proper alignment with the writing baseline.

CONCLUSION

The animated video used in learning helps grade VII mildly retarded students at SLB Putra Mandiri understand Indonesian language material, especially on the theme of Animal Breeding, more easily. Interactive animated videos featuring various moving animals accompanied by sound effects can increase students' attention and concentration during learning. This is in line with Mayer's (2001) theory on multimedia learning, which states that the learning process will be better if information is delivered simultaneously through visual and verbal channels. Information that is delivered concretely and multimodally is very helpful for learners with cognitive limitations such as children with disabilities. Thus, the research findings show that animated video media plays a role in supporting the learning process of writing for mildly disabled students, both from the cognitive, fine motor and learning engagement aspects. Although it cannot be concluded as the most effective media, the results show progress in the ability to copy vocabulary and recognize letter shapes, so animated videos can be considered as an alternative learning media in SLB.

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AUTHOR CONTRIBUTIONS

SN: Conceptualization, Methodology, Validation, and Writing Original Draft. OI and DA Writing Review & Editing and Conclusion Formulation.

DECLARATION OF COMPETING INTEREST

The authors declare no known financial conflicts of interest or personal relationships that could have influenced the work reported in this manuscript.

DECLARATION OF ETHICS

The authors declare that the research and writing of this manuscript adhere to ethical standards of research and publication, in accordance with scientific principles, and are free from plagiarism.

DECLARATION OF ASSISTIVE TECHNOLOGIES IN THE WRITING PROCCES

The authors declare that Generative Artificial Intelligence and other assistive technologies were not excessively utilized in the research and writing processes of this manuscript.

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