

# The Effect of Articulate Storyline 3 Media on the Ability to Distinguish Animal Habitats in the Surrounding Environment among Students with Intellectual Disabilities

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## ABSTRAK

Penelitian ini mengkaji pengaruh penggunaan Articulate Storyline 3 sebagai media pembelajaran terhadap kemampuan peserta didik tunagrahita dalam membedakan habitat hewan di lingkungan sekitar. Penelitian ini dilatarbelakangi oleh rendahnya pemahaman peserta didik tunagrahita terhadap materi Ilmu Pengetahuan Alam dan Sosial (IPAS), khususnya dalam mengenali berbagai jenis habitat, serta keterbatasan media pembelajaran yang interaktif. Metode yang digunakan adalah kuantitatif dengan desain pra-eksperimental one group pretestposttest. Subjek penelitian terdiri dari tujuh peserta didik tunagrahita fase B di SLB C Setyadarma Surakarta. Data dikumpulkan menggunakan tes objektif berupa soal pilihan ganda dan menjodohkan yang diberikan sebelum dan sesudah perlakuan. Hasil uji Wilcoxon Signed Rank menunjukkan nilai signifikansi sebesar 0,018 ( $p < 0,05$ ), yang berarti terdapat perbedaan signifikan antara skor pretest dan posttest. Hasil penelitian menunjukkan bahwa Articulate Storyline 3 berpengaruh positif dan dapat menjadi media pembelajaran interaktif yang efektif.

**Kata kunci:** articulate storyline, habitat hewan, tunagrahita, media interaktif, pembelajaran IPAS

## ABSTRACT

This study examines the effect of using Articulate Storyline 3 as a learning medium on the ability of students with intellectual disabilities to distinguish animal habitats in their surroundings. The research was motivated by the low comprehension levels of Natural and Social Sciences (IPAS) among these students, particularly in identifying various types of habitats, and by the limited availability of interactive learning media. A quantitative method with a pre-experimental onegroup pretest-posttest design was used. The subjects were seven phase B students with intellectual disabilities at SLB C Setyadarma Surakarta. Data were collected through objective tests consisting of multiple-choice and matching questions, administered before and after the intervention. The Wilcoxon Signed Rank Test produced a significance value of 0.018 ( $p < 0.05$ ), indicating a significant difference between the pretest and posttest scores. The findings show that Articulate Storyline 3 has a positive impact and can serve as an effective interactive learning tool for students with intellectual disabilities.

**Keywords:** articulate storyline, animal habitat, intellectual disabilities, interactive media, IPAS

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## INTRODUCTION

Students with intellectual disabilities have limitations in intellectual and adaptive abilities, which impact their ability to understand abstract concepts such as animal habitats (Azzahra et al., 2024). These limitations pose unique challenges to the learning process, particularly in science and social studies (IPAS), especially when it comes to distinguishing animal habitats. This is exacerbated by the lack of learning media that can be adapted to the characteristics and needs of students with intellectual disabilities.

Based on observations conducted at SLB C Setyadarma Surakarta, it was found that most students had difficulty understanding the differences between terrestrial and aquatic habitats. This difficulty was evident from their low daily evaluation scores and lack of active participation in the learning process. Teachers at the school stated that the media used so far is still conventional and does not attract students' attention. This has an impact on students' motivation to learn and their understanding of the concept of distinguishing animal habitats. One approach that can be used to improve the effectiveness of learning is the use of interactive digital-based technology.

Articulate Storyline 3 is an application that enables the creation of interactive learning media that can be tailored to the characteristics of students with special needs (Amiroh, 2020). This media provides various visual and animation features that can increase students' interest and attention to the material being presented. Several previous studies have shown the effectiveness of using Articulate Storyline 3 in improving student learning outcomes, both in the context of general education and special education (Firdawela et al., 2021). In addition, the use of interactive media can also encourage students to be more active and independent in the teaching and learning process. Thus, this study is important to determine the extent of the influence of Articulate Storyline 3 application-based learning media on the ability of students with intellectual disabilities to distinguish animal habitats in their surroundings. This study is expected to contribute significantly to the development of more inclusive, enjoyable, and adaptive learning strategies in accordance with the needs of students with intellectual disabilities in special schools. This media has an attractive appearance and interactive features that allow students to be more active in learning (Amiroh, 2020). This study aims to determine the extent of the influence of Articulate Storyline 3 media on the ability to distinguish animal habitats in the surrounding environment. Previous studies have shown that technology-based media can improve students' understanding in science learning (Firdawela et al., 2021). Therefore, this study is expected to contribute to the development of appropriate learning media for students with intellectual disabilities.

## METHODS

This study used a quantitative approach with a pre-experimental method (Sugiyono, 2022). The design used was a One Group Pretest-Posttest Design. The research subjects were seven phase B students with intellectual disabilities at SLB C Setyadarma Surakarta. The data collection instruments were multiple-choice and matching tests to measure the ability to distinguish animal habitats. The data were analyzed using the Wilcoxon Signed Rank Test to determine the significance of the differences before and after the treatment.

**RESULT AND DISCUSSION**

**Table 1. Descriptive Statistics of Pretest and Posttest Scores**

	Nilai Prepost	Nilai Posttest
N Valid	7	7
Missing	0	0
Mean	58.09	87.62
Median	53.33	86.67
Mode	53.33	86.67
Std. Deviation	11.363	10.488
Minimum	40.00	66.67
Maximum	73.33	100

The average pretest score was only 33.33, indicating that the understanding of students with intellectual disabilities regarding the concept of animal habitats was still very low before being given treatment in the form of interactive learning media. The mistakes made by students at this stage generally lay in their inability to associate the characteristics of animals with their living environment. For example, some students still thought that fish lived on land or birds lived in water because they resembled ducks. This shows that their classification abilities were still limited cognitively.

After being given treatment using the Articulate Storyline 3 application media, the posttest results showed a very significant increase, with the average rising to 78.33. This increase shows that students were able to better understand the concept of animal habitats after being given stimuli through attractive visual, audio, and animation media. Students became more focused in their learning and more active in answering the questions presented in the media. In fact, some students showed expressions of joy and asked to repeat the game in the media, which indicates a noticeable increase in emotional involvement and learning motivation.

This improvement was not only seen in the average score, but also in the standard deviation, which remained stable. This shows that almost all students experienced a relatively even increase in understanding, not just one or two students. In learning observations, students were more responsive when given quiz questions in the Articulate Storyline 3 media compared to when learning using books or static images.

**Table 2. Wilcoxon Pretest and Posttest Results**

<b>Test Statistics<sup>a</sup></b>	
	Nilai Posttest – Niai Pretest
Z	-2.375 <sup>b</sup>
Asymp. Sig. (2 -tailed)	0.018

a. Wilcoxon Signed Ranks Test  
 b. Based on negative ranks.

The Wilcoxon test showed a significance value of 0.018 ( $< 0.05$ ), which means that there was a significant difference between the pretest and posttest scores. This proves that the treatment in the form of learning with Articulate Storyline 3 had a real impact on improving the ability of students with intellectual disabilities to distinguish animal habitats. In other words, the hypothesis in this study is accepted, that the use of interactive media has an influence on learning outcomes.

The Articulate Storyline 3 learning media provides a learning experience that is not only fun but also effective for students with special needs. They can see animals moving in their natural habitats, hear appropriate sounds, and try to answer quizzes that are appropriate for their cognitive level. The repetition and immediate feedback features are also very helpful in reinforcing concepts. Even when they answer incorrectly, the media still provides an opportunity to try again, which gradually strengthens their understanding of the concept.

The application of this media also helps teachers deliver material in a more interesting way, reducing dependence on lecture methods or printed books. Observations during learning show that students who were initially passive became more active in interacting with both teachers and peers. Classroom activities became more lively and dynamic, creating a conducive learning atmosphere for students with intellectual disabilities.

The results of this study are in line with previous findings by Amiroh (2020) and Indriani et al. (2021), which state that the use of technology-based interactive media can improve students' understanding in science learning, especially in the context of thematic learning that requires concrete visualization. Articulate Storyline 3 has proven to be a child-friendly, flexible medium that can be adapted to the needs of students with special needs (Indriani et al., 2021). The use of visual and animated media facilitates information absorption and increases learning engagement (Desiningrum, 2016). Overall, the results of this study indicate that a learning approach that combines technology and visualization is essential in special education. This success opens up broader opportunities to utilize other interactive media in learning based on the individual needs of students.

## CONCLUSION

Based on the results of research and data analysis that has been conducted, it can be concluded that the use of the Articulate Storyline 3 application has a significant effect on improving the ability to distinguish animal habitats in the surrounding environment in phase B students with intellectual disabilities at SLB C SETYADARMA Surakarta. This is evidenced by the increase in the average scores of students from the pretest to the posttest, and is reinforced by the Wilcoxon test results which show a significance value of 0.028 ( $p < 0.05$ ). This interactive media has been proven to be able to deliver material in a more interesting and easy-to-understand manner for students with special needs, with a visual, audio, and interactive approach that suits their learning styles. In addition, the use of Articulate Storyline 3 also increased student motivation and engagement during the learning process. Therefore, it is recommended that teachers in special schools and inclusive education consider using interactive technology-based learning media such as Articulate Storyline 3 as an effective alternative in supporting the teaching and learning process, especially in concrete subjects such as learning about animal habitats.

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