

# Effectiveness of Articulate Storyline-Based Learning Media in Elementary School Indonesian Language and Literature Learning Courses

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**Abstract.** The objective of this study is to assess the efficacy of using Articulate Storyline-based learning media in Indonesian Language and Literature Learning courses at the Elementary School level in the PGSD FIP department at Medan State University. The study methodology employs quantitative approaches utilizing N-Gain theory. Data collecting methods employ learning outcome assessments, namely pre-test and post-test formats. The scientific investigation was conducted at the Primary School Teacher Education Study Program, which is located within the Faculty of Education at Unimed. Twenty pupils from class A PGSD 2022 at Unimed Stambuk Primary School Teacher Education were selected as research subjects for the 2022 academic year. Statistically significant changes in scores were seen between the pre-test and post-test findings. The pre-test yielded a score of 52.75%, while the post-test achieved a score of 88%. The criterion for evaluating the efficacy of Articulate Storyline-based learning media in Elementary School Indonesian Language and Literature Learning courses using N-Gain was designated as "Effective" with a score of 78%. The research findings indicate that the use of Articulate Storyline-based learning medium is successful in Indonesian Language and Literature Learning courses at PGSD FIP Elementary School, Medan State University.

**Keywords:** Effectiveness, Articulate Storyline, Learning, Media, Literature

## 1 Introduction

Within a progressively sophisticated digital age, the integration of technology in education has become an imperative necessity. The advent of the digital age has a significant impact on human existence, particularly in the realm of education in Indonesia [1]. One strategy to enhance the quality of education is by using technology-driven learning materials. Modern learning utilises technology in the form of electronic gadgets that can readily access different types of learning requirements to facilitate learning in the study room [2]. The issue encountered by educators in Indonesian Language and Literature Learning courses in Elementary Schools is how to provide

the subject in a captivating and efficient manner, thereby enabling students to comprehend and correctly apply knowledge.

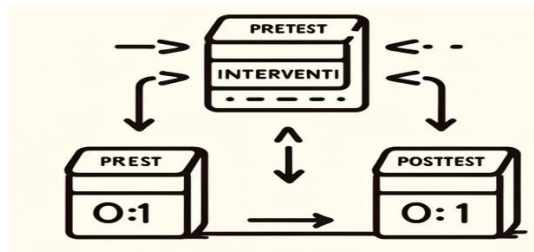
Historically, the acquisition of Indonesian Language and Literature has predominantly relied on lecture-based instruction and the direct use of textbooks. Nevertheless, this approach does not consistently provide positive results in terms of captivating students' attention or facilitating immersive learning. Therefore, it becomes necessary to choose educational materials that are more engaging and have the ability to enhance student engagement. Many instructors still lack a comprehensive understanding of how to select effective and suitable learning resources to facilitate student learning in the present digital age [3]. The presence of these barriers hinders the learning process, leading to a diminished level of student engagement and hence hindering the optimal attainment of learning goals. Educational media refer to instruments that facilitate the teaching and learning process by enhancing the clarity of the communicated content and enabling the effective and efficient achievement of educational or learning goals [4].

The program Articulate Storyline presents a promising answer to this problem by enabling the creation of interactive e-learning content. Articulate Storyline is a software application utilized as a platform for delivering information and facilitating communication through presentation media (Pratama, 2019). Through the integration of text, audio, video, animation, and interactive quizzes, Articulate Storyline-based learning media enables instructors to present content in a more dynamic manner. It is anticipated that this approach will enhance the efficacy of learning by providing a more engaging and comprehensive learning experience. Articulate Storyline is a robust authoring tool designed for the creation of interactive learning material. It enables the integration of text, graphics, photos, sound, animation, and video into a single cohesive document [5]. Therefore, its use is very interactive and engaging, allowing individuals with auditory or visual learning preferences to learn well and enjoy themselves. Online accessibility to this program is facilitated by electronic devices equipped with internet connectivity.

Although the potential advantages of utilizing Articulate Storyline are evident, its efficacy in the setting of Indonesian Language and Literature Learning courses in Elementary Schools has yet to be rigorously evaluated. Assessment of the degree to which this medium may enhance students' comprehension, their engagement in the learning process, and the attained learning results is crucial. In comparison to PowerPoint media, the utilization of Articulate Storyline media is more efficacious in enhancing student learning accomplishment [6]. Hence, this study was undertaken to assess the efficacy of Articulate Storyline-based learning media in Elementary School Indonesian Language and Literature Learning courses.

## **2 Method**

The present study falls into the category of qualitative descriptive experimental research. Creswell defined the experimental technique as a research approach employed to ascertain the impact of certain treatments on the outcomes of a study [7]. The present study used the One Group Pretest-Posttest Design approach to assess the efficacy of Articulate Storyline-based learning media in Elementary School Indonesian Language and Literature Learning courses. In this design, a single group of participants will do a pretest before the intervention and a posttest after the intervention to assess the resultant changes following the use of the learning material. This study used the One Group Pretest-Posttest method to assess student learning results both before and after utilizing Articulate Storyline media. This design scheme is outlined below:



**Fig. 1.** Design of a One Group Pretest-Posttest

**Information:**

- Pre-test (O1): Conducted before the intervention to measure students' initial knowledge.
- Intervention (X): Providing learning using Articulate Storyline based media.
- Post-test: Carried out after the intervention to measure changes in students' knowledge and understanding after using the media.

The participants of this study consisted of a cohort of students enrolled in the Primary School Teacher Education (PGSD) study program, namely doing Indonesian Language and Literature Learning courses. Participants were deliberately chosen based on their comparable backgrounds and willingness to participate in the whole research series. The study participants for class A PGSD 2022 shall consist of 20 students.

The primary tool employed in this study is a learning outcomes assessment. The test's objective is to assess students' comprehension of the topic both before and after utilizing the Articulate Storyline digital platform. The examination questions are designed based on the content covered in the Indonesian Language and Literature Learning course for Elementary School students.

There are several steps in this research process, including:

- a. Preparation  
Developing Articulate Storyline-based learning materials in accordance with the course curriculum.
- b. Pretest (O1)  
Carrying out initial tests to measure students' basic knowledge before being given intervention.
- c. Intervention  
Carrying out learning using Articulate Storyline media in several meetings.
- d. Posttest (O2)  
Carrying out tests after intervention to measure improvements in learning outcomes.

Utilizing the following formula, data from the pretest and posttest will be analyzed:

$$\text{Final Score} = \frac{\text{Total Correct Scores}}{\text{Total Score}} \times 100\% \quad [8]$$

The scores obtained by students from the results of the student's pre-test and post-test will be classified according to the student's learning pass level. The effectiveness test is obtained from student learning results, namely pre-test and post-test using the N-Gain formula, as follows:

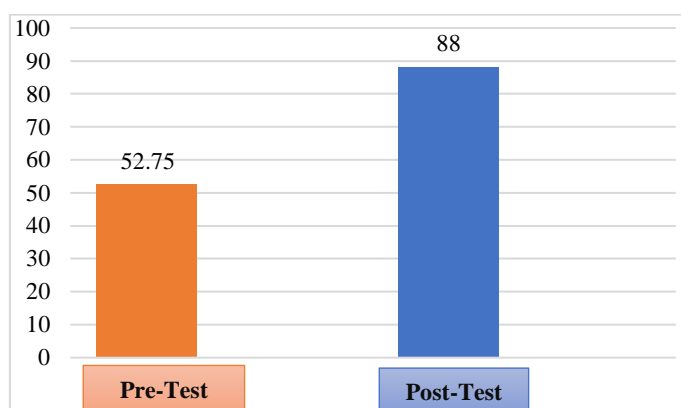
$$N - Gain = \frac{\text{Posttest Score} - \text{Pretest Score}}{\text{Maximum Score} - \text{Pretest Score}} \quad [9]$$

#### Information:

- N-Gain: Normalized gain (improvement) coefficient
- Maximum Score: The highest score if all test questions are answered correctly
- Posttest Score: Results of the most recent instrument used
- Pretest Score: Results of the first instrument used

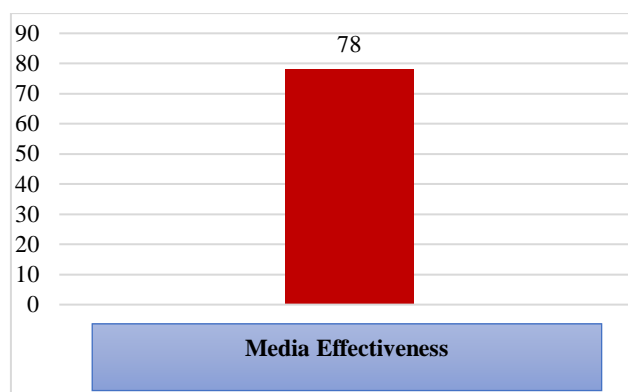
### 3 Results and Discussion

The data analysis findings will demonstrate how well student comprehension and learning outcomes are improved by Articulate Storyline-based instructional media. Pre-test and post-test questions are used to measure effectiveness. The following graphic shows the student learning outcomes for the Elementary School Indonesian Language and Literature Learning course before and after utilizing Articulate Storyline-based media.:



**Fig. 2.** Results of the Pretest and Posttest

Figure 2 indicates that the use of Articulate Storyline-based media in the Elementary School Indonesian Language and Literature Learning course has increased student learning results. A score of 52.75% on the pre-test fell into the "Quite Effective" category. In the meanwhile, the post-test yielded an 88% score, falling into the "Very Effective" category of accomplishment. The graphic below illustrates the success of utilizing Articulate Storyline-based media in Elementary School Indonesian Language and Literature Learning courses that employ the N-Gain formula:



**Fig. 3.** Evaluation of Articulate Storyline Based Media

Figure 3 demonstrates that Articulate Storyline based media with N-Gain had a 78% success rate, meeting the "Effective" requirement. Media utilizing Articulate Storyline in Elementary School Indonesian Language and Literature Learning courses can be considered useful in enhancing student learning results.

Evaluation of the efficacy of Articulate Storyline-based media in Elementary School Indonesian Language and Literature Learning courses was conducted by administering pre-tests and post-tests to a sample of 20 students in class A. The average score of 52.75 on the pre-test was classified as "Quite Effective" based on the pre-test and post-test observations. Furthermore, in the conducted post-test, a mean score of 88 was achieved, placing it inside the "Very Effective" classification. The Articulate narrative is a highly engaging interactive educational tool. The Articulate Storyline application includes functionality similar to Flash for animation creation, but employs a straightforward interface reminiscent to PowerPoint. Extensive capabilities like as flash and a user-friendly interface similar to power point make articulate tale suitable for interactive multimedia applications [10].

Utilizing the N-Gain technique, the criteria for evaluating Articulate Storyline-based media in Elementary School Indonesian Language and Literature Learning courses was "Effective" with a score of 78%. Therefore, it can be inferred that the use of Articulate Storyline-based media has the potential to enhance Student learning outcomes in Elementary School Indonesian Language and Literature Learning courses, thereby proving its effectiveness. The efficacy of educational media can be ascertained by analyzing the outcomes of student learning assessments. In order to be considered effective, a learning medium must enhance student learning outcomes prior to its use [11]. An effective learning medium is defined as one in which the majority of students get a high level of learning mastery [12]. The effectiveness of learning media may be assessed using medium criteria when the N-Gain score falls between 0.7 and 0.3, and meets high criteria when the number exceeds 0.7 [13]. Articulate Storyline is a robust writing tool designed for the creation of interactive learning material. It enables the integration of text, graphics, photos, sound, animation, and video into a one cohesive document [14]. Therefore, its use is very interactive and engaging, allowing individuals with auditory or visual learning preferences to learn well and enjoy themselves.

## 4 Conclusion

The conclusions drawn from the conducted research indicate that Articulate Storyline-based learning media is efficacious in enhancing student comprehension and academic achievements in Indonesian Language and Literature Learning courses in Elementary Schools. The substantial increase in learning results following the use of Articulate Storyline demonstrates the efficacy of this learning medium in successfully communicating information. These findings align with the constructivist learning theory, which suggests that learning that includes active student involvement is often more successful. This is evidenced by the comparison of pretest and posttest results, which consistently demonstrate an improvement in comprehension of the taught subject. A score of 52.75% on the pre-test was classified as "Quite Effective". Furthermore, the post-test yielded a score of 88%, placing it inside the "Very Effective" level of accomplishment. The results of calculations using N-Gain indicate that Articulate Storyline based media has a 78% efficacy on the eyes, meeting the "Effective" requirement.

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