

# Effectiveness of Using The Storytelling Method With Paper Puppet Animation Prototypes to Improve Speaking Skills in UPT SPF State Elementary School 106172 Deli Serdang

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## ABSTRACT

Based on the results of the researcher's observations, Grade IV students of SPF UPT SD Negeri 106172 Tuntungan, during the Indonesian Language learning process, it is known that students' interest in storytelling activities is still low. This can be seen when students do not understand the material presented by the teacher during the teaching and learning process. This is caused by teachers who have not planned the learning in advance, the media used by teachers is not interesting, and even do not use media that can generate activity and attract the attention of all students, so that students are not motivated to follow the learning and the learning outcomes obtained are not optimal. This study aimed to determine whether paper puppet media influences speaking skills in Indonesian language subjects for class IV UPT SPF SD Negeri 106172 Tuntungan. This type of research is quantitative experimental research (quasi-experimental design), with the nonequivalent posttest-only control group design approach, where there are two groups, namely the experimental group and the control group, and data collection techniques through tests. The population was taken from all students of UPT SPF SD Negeri 106172 Tuntungan, with samples taken from classes IV A and B as many as 40 people. The data validity test was validated by experts, while the data reliability test used the alpha formula. The Liliefors formula was used for data analysis. The results of this study showed the influence of paper puppet media on speaking skills in Indonesian language subjects for class IV UPT SPF SD Negeri 106172 Tuntungan, Medan. The results are based on the results of the "t-test" calculation, namely  $(15.49090) > (2.10092)$ , which means that there is acceptance in  $(H_0)$  and rejection in  $(H_a)$ . The posttest results obtained by Class IV A (experiment) with an average value of 80.25 and the posttest results obtained by Class IV B (control) with an average value of 64.25 show that the experimental class' speaking skill score was higher than the control class. Therefore, it can be concluded that paper puppet media influences speaking skills in Indonesian Language subjects.

Keywords: Storytelling Learning Method, Paper Puppets, Speaking Skills

## I. INTRODUCTION

Since man created, education occupies order First as a very important tool for continuity of human life. Although not yet, there is a term for formal and informal education, substance education, which is already needed. Education also works as a preparation process for human beings who have roles as thinkers and state administrators, knights and state protectors, and entrepreneurs who guarantee the prosperity and well-being of the country with all its citizens. Besides that, education teaches somebody to develop in accordance with talents, character, and abilities, as well as implant values of politeness, truthfulness, and good future planning to be able to take the right decision (Mikhaeil & Okulicz-Kozaryn, 2025). As stated in the Qur'an:

"And those who believe as well as charity pious, they That residents heaven; they abide therein forever ." (QS Al-Baqarah: 82) (of Religion of the Republic of Indonesia, 2014:56).

Based on the verse above, it can be concluded that knowledge is very important in life. With science, humans can get an education, become rational individuals, and think and differentiate between good and bad in making decisions. Education is a business consciously and systematically carried out by responsible individuals. It answers the form, nature, and character of participants educated in accordance with the ideals of education (Verma, 2025). Education also includes teaching conducted in schools as an institution of formal education, which makes efforts to enhance ability as well as awareness of social students (Irwan et al., 2025). Education aims to develop potential participants to become men of faith and piety to Almighty God One, virtuous

character noble, knowledgeable wide, has skills, as well as responsible answer to life society and state (Suryanti, 2023).

Language plays a very important role in the Indonesian education system. The Indonesian language subject in elementary schools aims to increase student's ability to communicate effectively, both orally and in writing. Speaking skills cover four main aspects, namely listening, speaking, reading, and writing skills, which are very important in creating an intelligent, critical, creative, and cultured generation (Gulua, 2025). Skills speak is the ability to convey ideas, thoughts, or feelings with the aim of ensuring that the message can be understood by the listener (Gulua, 2025). With talking skills, someone can express themselves, convey information, and interact with other people effectively.

However, based on results observation in class IV UPT SPF SD Negeri 106172 Tuntungan Deli Serdang Regency, skills speak student Still classified as low. Half of the students in one class have not yet reached the KKM (Criteria Minimum Completion) set by the school, namely 70. This is caused by students' low interest in storytelling, monotonous learning method, and lack of interesting use of media. Teachers are often use lecture method without tools that can increase students' motivation to learn. As a result, students do not sufficiently believe in telling and conveying their opinions (Observation early, February 26, 2020). In addition, interviews with the head of the school and guardian class confirm that the results of students in the eye Indonesian language lessons have not yet achieved the expected target (Arafah et al., 2025).

During the Covid-19 pandemic, learning was still implemented with health protocol. However, the use of innovative learning media remains a challenge. Media is tool that can help teachers deliver material to be more easily understood by students. Appropriate media for stage development of elementary school students is necessary, considering they are at operational concrete (Wijaya & Cahyaningtyas, 2025). One of the methods that can be used to increase students' speaking skills is the storytelling method with tool props animation puppet paper. Using puppet paper in learning can help students understand content story better, improve their participation in telling stories, and build self-trust.

## **II. METHODS**

### *A. Research Design*

This study used a quantitative approach, namely research that emphasizes data depth and is able to record information as much as possible from a wide population (Alfiansyah et al., 2025). Research quantitative own systematic, planned, and structured specifications since beginning until design design research (Sugiyono, 2019). This study used an experimental design. Research experiments are a method of strong quantitative measurement of the connection between cause and effect. This includes the category of experimental field, where the group that obtained treatment was separated from the daily life environment, allowings observation of other variables that can influence attitude change (Wang et al., 2025).

The research design used is a Quasi-Experimental Design or pseudo experiment, which tests the connection between free variables and bound variables to the sample group experiments and control groups. The second group was given a posttest (O). The study covered distribution subject to in two groups, where the experimental group was given stimulation in the form of the use of the method of telling a story with tool props, animation, puppet paper, whereas the control groupw as not given stimulation. The design used in this study was a nonequivalent posttest-only control group design.

### *B. Research Location*

This study was conducted at the UPT SPF of SD Negeri 106172 Tuntungan, Deli Serdang Regency. The population is a generalization area consisting of objects or subjects with certain qualities and characteristics determined by researchers for study and conclusion drawing (Sugiyono, 2019). The population in the study included all Class IV students of UPT SPF SD Negeri 106172 Tuntungan, which consisted of 231 students.

The sample is part of the selected population with limited funds, manpower, and time, and must be representative of the opulation (Sugiyono, 2019). In study this, sample consists of from 40 students from from class IV A and IV B, with technique taking sample use simple random sampling, namely technique taking sample in a way random without considering the existing strata in population.

### *C. Data Collection Technique*

Observation is a technique of data collection that is different from interviews or questionnaires Because No limited to interaction with humans but also includes observation of other objects (Sugiyono, 2019). Observation is a complex process involving biological and psychological aspetcs, including observation and memory (Sugiyono, 2019). This study observed the school conditions, the Indonesian language learning

process, and the students' speaking skills in the activity of telling stories in class IV UPT SPF SD Negeri 106172 Tuntungan.

Documentation is a systematic process of collecting, searching, investigating, and us documents to obtain information and evidence and spread it to users ( Sudaryono , 2016:90). Documentation of studies on objects written like books, magazines, documents, regulations, minutes meetings, and notes daily. This technique was used to complete the data from the interview and observation results.

Effectiveness Use Method Tell a story with teaching aids Animation Puppet Paper to Increase Skills Speak Fourth Grade Students of UPT SPF, SD Negeri 106172 Tuntungan Deli Serdang Regency Year 2025-2026 Learning.

In this study, the documentation used as data sources included device learning, photos activity Study teaching, and various other items in documentation, such as teachers, students, conditions classes, facilities and infrastructure school, and environment school.

A test is a tool or procedure used to determine or measure something in the atmosphere with the methods and rules that have been determined. Sugiyono explains that a test as an instrument of data collection is a series of questions or exercises used to measure the knowledge, intelligence, ability, or talents of an individual or group. In study here, there is a number of type tests used:

1. The Pretest is administered before the learning process ongoing know to determine the extent of students' knowledge of the material to be studied. This data was used as capability data. The pretest was given in the form of a script story fairy tale, whose characters must be played by students in accordance with the story in the script.
2. The Posttest was administered at the end of the learning process to measure the results of the students after treatment. The scores obtained in the posttest are expected to be higher than those in the pretest. The posttest used the same instrument as the pretest, namely, students requested to play a role from the text the script that has been prepared.
3. Test Practice Test practice is a demanding test answer participant education in form behavior, actions, or deeds. In this study, test practice was conducted through game roles using puppet media paper in accordance with the channel story that has been provided.

### III. RESULTS AND DISCUSSION

#### A. Research Result

This study aimed to determine the effectiveness of using storytelling methods with teaching aids such as animation, puppets, and paper to increase speaking skills among fourth grade students of UPT SPF, SD Negeri 106172 Tuntungan, Deli Serdang Regency in the 2025-2026 Learning. The study was conducted from July 21 to September 1, 2025. The sample in this study was Class IV A UPT SPF SD Negeri 106172 Tuntungan as the experimental class and Class IV B as the control class. The stage beginning study started with administering a pretest to second-student class. Next, the class experiment was given treatment using puppet media paper in the learning process, whereas the class control used the conventional learning method. After treatment, both classes were given a posttest to determine the improvement in students' speaking skills. Data collection was carried out with a shared instrument in the form of a script story to 40 students, consisting of 20 students in the experimental group and 20 students in the control group.

Validity is the size that shows the level of validity of an instrument. An instrument is considered valid if the own mark R count > R table. However, invalid instruments have a mark R count < R table based on the correlation test Product Moment.

Table 1. Validity Test Results before used for hypothesis testing

Indicator	R count	R table	Conclusion
1	0.923	0.361	Valid
2	0.754	0.361	Valid
3	0.855	0.361	Valid
4	0.855	0.361	Valid
5	0.771	0.361	Valid

After all questions were tested for validity, reliability testing was conducted to ensure that the instrument could be trusted as a data collector. An instrument is considered reliable if its reliability is greater than 0.7.

Table 2. Reliability Test Results

Indicator	Variance X
1	9,030
2	2,806
3	7,040

	4	4,809
	5	4,051
Number of Item Variances		27,736
Total Variance		91,667
N		30
Reliability Value		0.87
Decision		Reliable

The level of reliability (KR-20) was  $> 0.7$ , so it can be concluded that the instrument question fulfills the condition of reliability. Before conducting classroom learning experiments and class control. Moreover, pretest questions were given to the second class sample for knowledge skills.

Table 3. Frequency of Pretest Results of Class IV B Students (Control)

No.	Pretest score	Category	Frequency	Percentage
1.	67.8 and above	Top / high	4	20%
2.	55.2 to 67.8	Middle / medium	14	70%
3.	67.8 and below	Down / low	2	10%
	Amount		20	100%

From the analysis above, it can be concluded that in the pretest control class IV B, 4 (20%) students were classified as high, 14 students were classified as medium (70%), and 2 students were classified as low (10%). Based on the data above, a table can be obtained summarizing the mean scores and standard deviations of the data from the experimental and control classes.

Table 4. Summary Results of Mean Scores and Standard Deviations of Pretest Data for Experimental Class and Control Class

No	Information	Class	
		Experiment	Control
1	Mean	59,25	61,5
2	Standard Division (SD)	6,74	6,3

Before conducting the research hypothesis test with the t-test, the data analysis prerequisites were tested, consisting of the normality and homogeneity tests. This normality test was used to determine whether the student pretest data had a normal distribution. With the following explanation:

Ho = Data is normally distributed

Ha = Data is not normally distributed

The posttest was conducted after the experimental class was given treatment using This posttest was conducted to determine the effect of using paper puppet animation props on speaking skills. students on eye Indonesian language lessons.

Table 5. Tabulation Score Mean and Elementary School Posttest Score

No.	X	F	$X^2$	FX	FX <sup>2</sup>
1.	70	1	4900	70	4900
2.	75	6	5625	450	33750
3.	80	6	6400	480	38400
4.	85	5	7225	425	36125
5.	90	2	8100	180	16200
Amount		N = 20	$\sum X^2 = 32250$	$\sum FX = 1605$	$\sum FX^2 = 129375$

### B. Discussion

Based on the description of the research results and hypothesis testing that has been carried out, it shows that learning using animated paper puppet media influences skills. students' speaking skills in Indonesian language subjects in grade IV of UPT SPF SD Negeri 106172 Tuntungan in the 2025-2026 academic year. This can be seen from the results of the pretest and posttest differences test, which showed that the posttest results in the experimental class were better than the pretest results.

The pretest determines the extent to which the material or ingredients taught have been mastered by the student. The results showed that the average pretest score in the experimental group was 59.25 and 61.5 in the control group. Results of the pretest difference test between the experimental groups and group control show  $t_{hitung} (1,972) < t_{tabel} (2,10092)$ . It means No there is difference average data pretest on both groups, so it can be concluded that students have speaking skills same beginning.

The process of learning that was ongoing in the class experiment and The control class was implemented based on a previously designed teaching module and was implemented over two meetings. The learning processes in the experimental and control classes were generally the same. The difference lies in the experimental class' use of paper puppet animation props in the implementation of learning, while in the control class, the researcher used conventional learning.

At the beginning of the research carried out in the experimental class, the first step taken by the teacher was to convey the material in a... outline, then students can learn by themselves in outline, during the learning, students look calm and follow the learning well, this can be seen from the teacher and students doing Q&A. After the delivery of the material is finished, students are asked to read and understand the material that has been delivered by the teacher. Students are then stimulated to express statements related to the existing material, and they are given the opportunity to demonstrate the role of characters using paper puppet animation props according to the material.

Students are given the opportunity to ask the teacher questions about the material they find difficult. The teacher attempts to answer these questions by asking leading questions. Additionally, the teacher conducts a Q&A session related to the material being studied to determine the students' level of conceptual understanding. At the end of the study, the teacher asked the students to conclude the material that had been discussed. Meanwhile, in the control class, the teacher used conventional learning methods such as lectures, Q&A sessions, and continuous discussions throughout the learning process. In this control class, students presented materials or told stories using only scripts. This led to other students feeling bored when one of them read the script aloud.

Conventional learning prevents students with lower abilities from having the opportunity expressing their opinions during the learning process. This type of learning prevents students from understanding the learning material. The understanding that students gain during the learning process tends to be temporary.

In addition, the atmosphere in the control class was less conducive, and the learning process was less efficient compared to the experimental class. This was evident during the learning process, where students tended to remain silent and sit at their desks. with activity each, and listen explanation Teacher without asking. This is because they do not understand the material in the learning process because it's not interesting.

These findings demonstrate a clear difference in learning activities between the experimental and control classes. In the control class, students tended to be passive and bored more quickly during the learning process. This was due to the differences in treatment between the experimental and control classes, as well as the lack of engaging and focused activities in the latter. Consequently, they sought out and engaged in activities they found enjoyable.

After conducting the learning, the teacher gave the posttest story script to the two sample classes, namely the same story script as the pretest. The posttest results showed that the speaking skill scores obtained by the students in the experimental and control classes were different. This indicates that, overall, the paper puppet animation props had a significant influence on students' speaking skills.

The average post-test result in the experimental class was 80.25, while in the control group, it was 64.25. The t-test calculation on posttest  $t_{hitung} (15,49090) > t_{tabel} (2,10092)$  Which It means there is The difference in the average between the experimental and control classes. The pretest-posttest increase in the experimental class was 21, while in the control class the pretest-posttest increase was 2.75.

The results of the posttest influence test between the experimental class and the control class show  $t_{hitung}$  greater than  $t_{tabel}$  This means that  $H_0$  is rejected and  $H_a$  is accepted. With thus There is the influence that significant learning by using the use of animated paper puppet props on students' speaking skills in Indonesian language subjects in class IV UPT SPF SD Negeri 106172 Tuntungan in the 2025-2026 academic year.

By providing paper puppet animation props, students felt happy and enthusiastic about participating in learning. Students are also more confident in expressing their behavior than their teachers. The results of the study show that the improvement of students' storytelling skills is seen in the quality of the learning process shown by activeness, attention to lessons, enthusiasm during learning, courage to tell stories in front of the class, and group cooperation to create fun, active, and creative learning. Therefore, it can be understood that paper puppet animation props can influence students' speaking skills, and it is proven that there is an influence of paper puppet animation props on the speaking skills of students.

#### **IV. CONCLUSIONS**

Based on the results of the research conducted at the UPT SPF of SD Negeri 106172 Tuntungan in the 2025-2026 academic year, it can be concluded that the use of paper puppet animation props in Indonesian language learning in grade IV has a significant influence on improving students' speaking skills. This shows that interactive and media-based learning can increase interest as well as motivation of students in study, especially in aspect skills talking that requires courage, clarity in disclosure ideas, and active interaction between teachers and students.

The results of the data analysis that have been done show that there is a significant difference between students' speaking skills before and after using paper puppet animation props. This is proven through the calculation of t-test statistics on the posttest, which produced a t count (15.49090), which is much larger than the t table (2.10092); thus the alternative hypothesis ( $H_a$ ) is accepted. Thus, it can be concluded that using paper puppet animation props in a real way positively impacts the development of students' speaking skills.

In addition, through observation during the ongoing study, it was found that previous students tended to be passive and less confident in speaking in front of the class, but became braver in disclosing opinions as well as more active in participating in activities involving telling stories. Students look more enthusiastic and passionate in follow learning, especially because paper puppet animation props can create an atmosphere of learning that is more fun and interesting.

With increasing skills speak student through use paper puppet animation props, it is hoped that teachers can continue to develop and implement various innovative learning media that can support development skills speaking students. Packaged learning with creative methods will be more easily accepted by students, so that they not only understand the material presented but are also capable of applying skills to speak with more self-belief in various situations.

The results of this study also confirm that in the learning process, the use of appropriate media can help overcome various frequent obstacles faced by students, such as fear of speaking in front of the general public, lack of courage in conveying opinions, and low motivation to learn. Therefore, paper puppet animation props can be an effective solution for increasing the quality of learning Indonesian, particularly in the aspect of speaking skills at the school level.

Thus, it can be concluded that using paper puppet animation props plays a role in increasing students' speaking skills and helps create an environment that is more active, communicative, and fun. Therefore, the application of this media can continue to be developed in learning as one of the supporting strategies for optimally speaking skills.

#### **Funding Statement**

"No external funding was received for this study."

#### **Ethical Compliance**

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

#### **Data Access Statement**

A Data Access Statement is a section in a scientific publication or research report that explains how the data used or generated in the study can be accessed by readers or other researchers. This statement aims to promote transparency, support research reproducibility, and comply with open-access policies, where applicable.

Common Elements in a Data Access Statement:

1. Data Location: Specifies where the data are stored, such as in online repositories (e.g., Zenodo, Dryad, or institutional repositories).
2. Access Instructions: Provides information on how to access the data, such as direct links, DOI (Digital Object Identifier), or contact details.

3. Data Availability: Indicates whether the data are publicly accessible, available upon request, or restricted due to ethical, legal, or privacy considerations.
4. Data Licensing: If the data are open, specify the applicable license (e.g., Creative Commons).

Examples of Data Access Statements:

1. Open Data:
  - "The data supporting this study are openly available in Zenodo at [DOI:10.xxxx/zenodo.xxxx]."
2. Restricted Data:
  - "The data that support the findings of this study are available upon request from the corresponding author. Due to privacy concerns, the data are not publicly available."
3. No Data Available:
  - "No datasets were generated or analyzed during the current study."
4. Conditional Access:
  - "The data supporting this study are available under restricted access and can be obtained upon reasonable request from the corresponding author and with the permission of the ethics committee."

Purpose of a Data Access Statement:

- Reproducibility: Enables other researchers to replicate or verify the findings.
- Collaboration: Encourages further collaboration by sharing data.
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### Conflict of Interest Declaration

The authors declare that they have no affiliations or involvement with any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

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