

BENCHMARKING

JURNAL MANAJEMEN PENDIDIKAN ISLAM

IMPROVING THE PROCESS AND OUTCOMES OF SCIENCE LEARNING USING THE TALKING STICK LEARNING MODEL WITH WORDWALL MEDIA

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Abstract

This research is motivated by the teaching and learning process not fully using learning models, the delivery of material is still monotonous, and teachers have not fully used learning media in social science learning, resulting in low social science learning outcomes in class IV SDN 130/II Pasir Putih. The aim of this research is to describe the improvement of the cognitive social science learning process and outcomes using the Talking Stick learning model with Wordwall media for class IV students at SD Negeri 130/II Pasir Putih. This research is classroom action research, consisting of two cycles. The research subjects were fourth grade students at SDN 130/II Pasir Putih. Research data was collected using qualitative and quantitative data analysis techniques. The research results show the process and results of class IV social science learning at SDN 130/II Pasir Putih. Details of teacher observation results in cycle I obtained a percentage of 76.91% in the good category and in cycle II obtained a percentage of 92.30% in the very good category. The results of student observations in cycle I obtained a percentage of 57.05% in the sufficient category and in cycle II obtained a percentage of 85.00% in the good category. Student learning outcomes in cycle I obtained a percentage of 35.00% with good/very good (complete) criteria totaling 7 students, in cycle II obtained a percentage of 75.00% with good/very good (complete) criteria totaling 15 students. It was concluded that the use of the Talking Stick model with Wordwall media could improve the science AS learning process and outcomes..

Keywords: Learning Process, Cognitive Learning Outcomes IPAS, Talking Stick, Wordwall

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INTRODUCTION

Education is a conscious effort to pass on culture from one generation to the next. It is carried out through a conducive learning environment and a teaching-learning process that actively enables students to develop their potential, including spiritual strength, self-control, character, intelligence, noble character, and the skills necessary for themselves and society. In a general and simple sense, education refers to human efforts to nurture and develop physical and spiritual potential based on societal and cultural values (Rahman et al., 2022:1–8).

The Merdeka Belajar (Independent Learning) policy has become one of the government's initiatives to enhance education quality, aiming to produce high-quality graduates—from elementary to university levels—who are ready to face increasingly complex challenges in the future. The Merdeka Belajar concept emphasizes the freedom of both educators and students. It motivates the development of an independent spirit in character, enabling both parties to freely and joyfully explore knowledge and skills while shaping their personalities in their respective environments (Darlis et al., 2022:394).

In the 2022/2023 academic year, the Merdeka Curriculum began implementation at the elementary level for grades 1 and 4. There are several subject differences in this curriculum compared to the 2013 Curriculum and the Emergency Curriculum. One of the new subjects introduced is IPAS (Natural and Social Sciences) (Puspitasari, 2023:2517).

IPAS (Ilmu Pengetahuan Alam dan Sosial) studies living and non-living beings in the universe and their interactions, as well as human life both as individuals and as social beings interacting with their environment (Azzahra et al., 2023:6230). IPAS is an integrated study designed to help students develop critical and rational thinking skills. Learning through the IPAS concept aims to provide experiences and enhance capabilities (Mazidah & Sartika, 2023:13). In the Merdeka Curriculum, Natural and Social Sciences are integrated into IPAS. The goal is to nurture students' curiosity, active participation, knowledge, and skills (Agustina et al., 2022:9180). In practice, students find IPAS fun and easy to understand at the elementary level because the content aligns with real-life experiences.

In conclusion, IPAS learning combines Natural and Social Sciences, focusing on living and non-living beings and their interactions in the universe, and human life as both individual and social beings, aiming to foster critical and rational thinking, curiosity, active participation, and the development of knowledge and skills.

The IPAS learning process in elementary schools requires teachers to create and develop instructional media that influence student learning activities. Learning is a collaborative effort between teachers and students to share and process information. The hope is that the knowledge delivered will benefit students and become a foundation for lifelong learning. Improvements in behavior and intellectual development—signs of an effective and efficient learning process—will emerge through this process. Intellectual ability and critical thinking are also formed in this way (Kurniasari et al., 2020).

Learning is an activity where students strive to achieve specific teaching objectives. These goals are only reached when students are actively engaged—not just physically but mentally as well. Physical activity alone, without mental engagement, indicates ineffective learning. True learning involves internal transformation (Windi Anisa et al., 2020). In the learning process, the teacher plays a central role. Teaching and learning involve a series of teacher and student actions and reciprocal relationships in an educational setting to achieve desired outcomes (Sanjani, 2020).

Learning outcomes refer to the knowledge students acquire from the material delivered by teachers, which is reflected in their ability to demonstrate experiences and understanding. In other words, learning outcomes determine students' academic success, observed through scores and behavioral changes (Kamil et al., 2021). They encompass cognitive, affective, and psychomotor domains.

According to Rahman (2021), learning outcomes are the abilities students acquire after undergoing learning experiences, covering knowledge, attitudes, and skills. Meanwhile, Sundahry et al. (2022) explain that learning outcomes are measured by how well students master the content after teaching and learning activities, often represented through numbers, letters, or specific symbols agreed upon by the school.

Based on these definitions, learning outcomes are the results obtained after engaging in learning activities, serving as evidence of academic achievement in specific subjects.

Based on classroom observations conducted on October 10, 12, and 14, 2024 in Grade IV at SDN 130/II Pasir Putih, it was found that the learning process still required adjustments. The teacher had not fully implemented diverse teaching models and relied heavily on textbooks as the sole resource. The delivery of material appeared monotonous, which failed to engage students in active learning. Additionally, the use of creative, innovative, and enjoyable learning media was limited, particularly in the IPAS subject. As a result, student participation was generally low, with only a few actively responding. This

contributed to poor mastery of the IPAS material, reflected in below-average classroom scores..

Tabel 1.1
Mid-Semester IPAS Scores – Grade IV (Odd Semester)

No	Inisial	KKTP	Nilai	Keterangan
1	AC	70	65	Not Yet Reached KKTP
2	PI	70	60	Not Yet Reached KKTP
3	AK	70	80	Not Yet Reached KKTP
4	R	70	80	Not Yet Reached KKTP
5	NS	70	50	Not Yet Reached KKTP
6	AA	70	75	Not Yet Reached KKTP
7	SH	70	85	Not Yet Reached KKTP
8	AP	70	75	Not Yet Reached KKTP
9	AR	70	65	Not Yet Reached KKTP
10	AN	70	85	Not Yet Reached KKTP
11	GA	70	45	Not Yet Reached KKTP
12	DA	70	60	Not Yet Reached KKTP
13	FR	70	50	Not Yet Reached KKTP
14	MA	70	60	Not Yet Reached KKTP
15	NH	70	80	Not Yet Reached KKTP
16	MC	70	60	Not Yet Reached KKTP
17	D	70	60	Not Yet Reached KKTP
18	A	70	65	Not Yet Reached KKTP
19	PP	70	70	Not Yet Reached KKTP
20	MI	70	60	Not Yet Reached KKTP
Number of Male Students			12	
Number of Female Students			8	
Total Scores			1.380	
Average Scores			72,63	
Students Who Have Achieved the Minimum Qualification Level (KKTP)			8 Siswa (40%)	
Students Not Yet Achieved the Minimum Qualification Level (KKTP)			12 Siswa (60%)	

(Source: Homeroom Teacher of Class IV SDN 130/II Pasir Putih.)

From Table 1.1, the Mid-Semester IPAS scores show that out of 20 students, only 8 (40%) met the KKM (Minimum Mastery Criteria), while 12 (60%) did not. Given this low performance, the researcher implemented the Talking Stick model for IPAS. According to Jaminah and Edy in Nilatanti et al. (2019:80), “The Talking Stick learning model encourages students to confidently express their opinions.” Besides promoting speaking skills, it creates an enjoyable and active learning environment.

Zaini Miftach (2024) explains that Talking Stick is a learning model that trains students to be brave in answering and speaking in front of others. The use of a rotating stick stimulates quick, accurate responses and assesses students' understanding of the material. In summary, the Talking Stick model involves using a stick passed around to encourage students to speak up.

The objective of the Talking Stick model combined with Wordwall media is to re-energize learning, stimulate creativity and imagination, and enhance students' observation and memory skills. This model is simple, easy to implement, and especially suited to elementary school students who enjoy learning through play without compromising

educational goals. As Kurniasih & Berlin (in Nilatanti et al., 2019:59) state, the Talking Stick model has several advantages:

- a. It tests students' readiness and understanding of the material,
- b. Trains them to read and comprehend quickly,
- c. Motivates learning since students never know when the stick will reach them.

Boredom caused by monotonous routines can occur anytime and anywhere. Therefore, creative and innovative learning media are necessary to foster student interest and motivation, which in turn improves learning outcomes. One such approach is using varied media, such as Wordwall, which was selected by the researcher to improve IPAS learning in Grade IV at SDN 130/II Pasir Putih.

Wordwall is an application that can serve as a learning medium, resource, and assessment tool for both teachers and students. It also offers examples of creative teacher-made content. Wordwall is an online application used to create quiz-based learning games and can be used to design and review assessments in learning (Nur Aidah & Nurafni, 2022:167).

RESEARCH METHOD

This study employed Classroom Action Research (CAR). Classroom Action Research is a scientific activity carried out by teachers in the classroom by implementing specific actions to improve the quality of learning. In addition, Classroom Action Research also aims to enhance the professionalism of teachers.

The cycle flow of Classroom Action Research can be illustrated as follows:

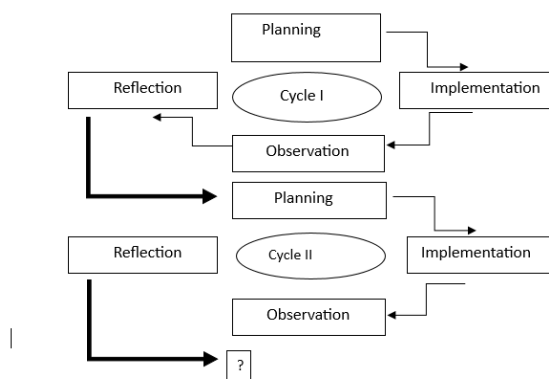


Chart 1 Classroom Action Research Cycle
Sumber: Arikunto dkk (2019:42)

The Classroom Action Research was conducted in Grade IV of SDN 130/II Pasir Putih, Rimbo Tengah Subdistrict, Bungo Regency, Jambi Province. This research was carried out during the second semester of the 2024/2025 academic year. The subjects of this Classroom Action Research were the Grade IV students of SDN 130/II Pasir Putih during the even semester of the 2024/2025 academic year, in the IPAS (Science and Social Studies Integration) subject. The class consisted of 20 students, including 12 boys and 8 girls.

The object of this research was the Talking Stick learning model using Wordwall media, applied to the Grade IV students of SDN 130/II Pasir Putih.

Data collection techniques are the steps or methods used by researchers to obtain data. In this study, the data collection methods applied include observation, cognitive tests,

and documentation. The data analysis techniques used were observational data and learning outcomes.

RESEARCH RESULTS AND DISCUSSION

This research is a classroom action research, in which the teacher is prepared to introspect and evaluate themselves, thereby enhancing their professionalism. Teachers are also expected to improve students' learning abilities, including reasoning, skills, knowledge, social interaction, and other aspects that are beneficial for students in their daily lives through specific strategies.

This research design was chosen because it aligns with the research objective, which is to improve students' critical thinking skills and enhance both the learning process and outcomes in the subject of IPAS (Natural and Social Sciences) in Grade IV at SDN 130/II Pasir Putih.

The implementation of the learning process in Chapter 7, "How to Get What We Need", used the Talking Stick learning model, which is a method employed by the teacher to achieve the desired learning objectives. In this study, the Talking Stick model is oriented towards creating an engaging learning environment through a stick-passing game. During the teaching session, the teacher passes a stick from one student to another while explaining the material and then asks a question. The student holding the stick at the time the question is asked is given the opportunity to answer. This activity continues until every student has had a chance to respond to the teacher's questions (Sundahry et al., 2023:65).

The researcher chose this model because the Talking Stick model offers several advantages, such as: 1) Testing students' readiness to master the lesson content; 2) Training students to read and comprehend material quickly; 3) Encouraging students to study more diligently, as they never know when the stick will reach them (Kurniasih & Sani in Arif, 2023:205).

In addition to the learning model, the researcher also utilized media to support a smooth learning process. The selected medium was Wordwall. According to Akbar et al. (2023:47), Wordwall is an interactive learning tool that provides templates such as quizzes, matching, pairing, anagrams, word scrambles, word searches, categorizing, and more. Interestingly, in addition to offering online access to the materials created, the application also allows content to be downloaded and printed. Wordwall offers 18 free-to-use templates, and users can easily switch between activity formats.

Based on the implementation results of the Talking Stick learning model combined with Wordwall media during Cycle I and Cycle II, the learning activities ran well in both stages. The objective of this research is to improve the learning process and outcomes of IPAS through the use of the Talking Stick model and Wordwall media in Grade IV at SDN 130/II Pasir Putih.

1. Improving the Learning Process

a. Teacher Performance Process

Based on the results of the research conducted, the researcher obtained data from the teacher performance observation sheets for each cycle. The data indicated an improvement in the teacher's performance across the cycles. This improvement occurred because the teacher consistently conducted evaluations after each learning session, allowing them to address shortcomings and implement improvements in subsequent lessons.

In Cycle I, meetings 1 and 2, the teacher's observation results showed several shortcomings or incomplete actions during the teaching and learning process. Additionally, the teacher had not yet mastered classroom management, resulting in a somewhat monotonous learning atmosphere. However, in Cycle II, meetings 1 and 2, the teacher

demonstrated improved classroom management, and students began to participate more actively in the learning process with the application of the Talking Stick model supported by Wordwall media. These earlier shortcomings had been successfully addressed, leading to more effective teaching and learning, as reflected in the improved observation scores.

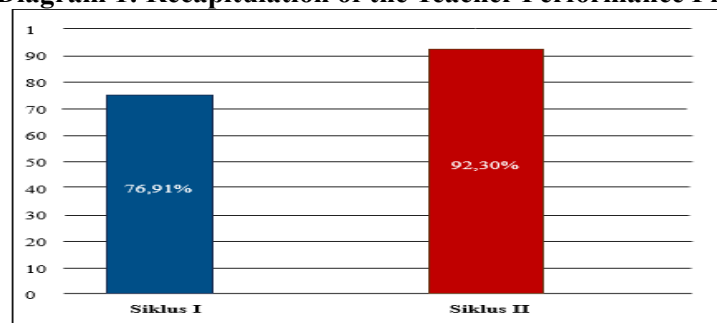
Based on the data collected, the researcher obtained the following teacher observation results for Cycle I and Cycle II (meetings 1 and 2). In Cycle I, the teacher achieved a percentage score of 76.91%, which increased in Cycle II to 92.30%. The data is presented in the following table:

Tabel. 1 Data Peningkatan Proses Kinerja Guru

Kegiatan	Pertemuan	Persentase	Kriteria
Cycle I	1	73,07%	Good
	2	80,76%	Very good
	Average	76,91%	Good
Cycle II	1	88,46%	Very good
	2	96,15%	Very good
	Average	92,30%	Very good

There was an increase in cycles I and II. In cycle I, the average percentage was 76.91%, and in cycle II, it was 92.30%, representing an increase of 15.39%. This is presented in the following diagram:

Diagram 1: Recapitulation of the Teacher Performance Process



Based on Diagram 4.1, the percentage in Cycle I was 76.91%, while in Cycle II it increased to 92.30%. This indicates that the implementation of IPAS learning using the Talking Stick model with Wordwall media in Grade IV at SDN 130/II Pasir Putih showed improvement from Cycle I to Cycle II. The increase was due to the teacher's ability to conduct IPAS lessons using the Talking Stick model and Wordwall media effectively, as expected.

The teacher consistently reviewed the implementation results as assessed by the observer after each lesson, allowing them to identify shortcomings in the teaching process. This reflective practice helped avoid similar mistakes in subsequent lessons. Through the teacher observation sheet, the researcher was able to minimize errors, which contributed to the improvement observed from Cycle I to Cycle II.

This finding aligns with Styawati Gunardi & Susilawati (2022:70), who state that the Talking Stick learning model emphasizes student engagement in the teaching and learning process and encourages them to express their opinions. This model motivates students to learn actively, understand, and discover concepts, enabling them to connect problems to relevant theories. For example, sample questions in student learning materials can be used to illustrate theories and concepts discussed between teacher and students. As a result, the learning process improves in each successive cycle.

b. Student Learning Process

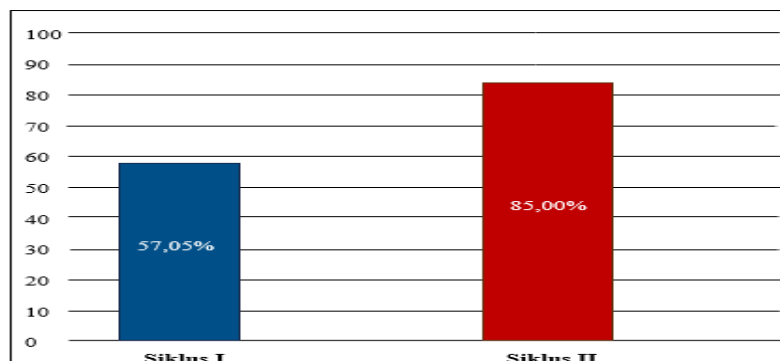
Based on the results of the implementation, the researcher obtained data from the student observation sheets for each cycle. The improvement in the learning process from Cycle I to Cycle II is as follows:

Tabel. 2 Data Peningkatan Proses Belajar Siswa

Kegiatan	Pertemuan	Persentase	Kriteria
Cycle I	1	50,00%	Enough
	2	65,00%	Good
	Average	57,05%	Enough
Cycle II	1	80,00%	Good
	2	90,00%	Good
	Average	85,00%	Good

Pada siklus I dan siklus II mengalami peningkatan, pada siklus I mendapatkan persentase sebesar 57,05% dan pada siklus II sebesar 85,00% mengalami peningkatan sebesar 27,95%, disajikan dalam bentuk diagram sebagai berikut:

Diagram 2 Recapitulation of Student Learning Process



From the diagram above, it can be concluded that the implementation of IPAS learning using the Talking Stick model with Wordwall media in Grade IV at SD Negeri 130/II Pasir Putih can enhance the student learning process. According to Apdoludin et al. (2023:106), learning outcomes refer to the abilities acquired by students as evidence of their achievement, which results in behavioral changes after undergoing the teaching and learning process.

2. Improving Student Learning Outcomes

Based on the research conducted, the researcher obtained data on student learning outcomes for each cycle. The research results are presented in the following table:

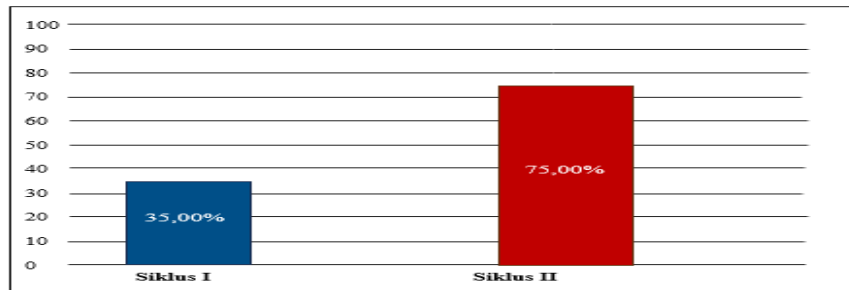
Table 3. Student Learning Test Results Data.

Activity	Percentage	Criteria
Cycle I	35,00%	Good
Cycle II	75,00%	Very good

Based on Table 4.9, it can be seen that students' learning test results showed an improvement from Cycle I to Cycle II. In Cycle I, the average score was 35.00%, which

then increased in Cycle II to an average of 75.00%. This indicates a significant improvement between the two cycles, as illustrated in the diagram below:

Diagram 3. Recapitulation of Students' Learning Outcome Data



Based on Diagram 4.3, it can be seen that the average student score in Cycle I was 35.00%, which falls into the “needs guidance” category, and increased in Cycle II to 75.00%, which is categorized as “good.” The learning process using the Talking Stick model combined with Wordwall media was implemented in the Grade IV elementary classroom because students were active and the approach helped create an enjoyable learning atmosphere.

The diagram above shows that IPAS learning outcomes improved through the use of the Talking Stick model. According to Bloom, learning outcomes are behavioral changes that cover three domains: cognitive, affective, and psychomotor. The cognitive domain includes learning objectives related to knowledge, intellectual development, and skills (Kosilah & Septian, 2020:1141).

It can be concluded that the Talking Stick model differs from other models in that it uses a physical tool—a stick passed from one student to another—accompanied by a national anthem or song during its implementation. This method is highly effective as it helps reduce student boredom, boosts enthusiasm, fosters active participation, creates a positive and engaging learning environment, and increases student motivation and learning outcomes in the IPAS subject.

CONCLUSION

Based on the results of the action research conducted in Grade IV of SDN 130/II Pasir Putih through the implementation of the Talking Stick model with Wordwall media, it was found that the IPAS learning outcomes of Grade IV students improved, as shown in the following points:

1. The improvement in the learning process can be seen from the teacher observation sheet, which increased from 76.91% (categorized as good) in Cycle I to 92.30% (categorized as very good) in Cycle II. The student observation sheet during the learning process in Cycle I showed an average percentage of 57.05% (categorized as poor), while in Cycle II it increased to an average of 85.00% (categorized as good).
2. The improvement in students' learning outcomes is shown by the results of the learning tests. In Cycle I, the average score was 35.00%, with 7 students achieving mastery. In Cycle II, the average score increased to 75.00%, with 15 students achieving mastery (good/very good category), showing an overall improvement of 40.00%.

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