

Improving Speaking Skills (Indonesian Language) and Understanding of Various Forms of Energy (Natural Sciences) through the Demonstration Method among Fourth-Grade Students of SDN 1 Kembang Kerang Academic Year 2010 - 2011

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Abstract

This study aimed to improve fourth grade students mastery of Indonesian Language and Natural Sciences at SDN 1 Kembang Kerang through the application of the demonstration method. The study employed a classroom action research (CAR) approach conducted in two Cycles. Each Cycle consisted of planning, action, implementation, observation, and reflection stages. The research subject were 21 fourth-grade students. Data were collected through learning outcome tests, observations of teacher and student activities, and learning documentation.

The result of cycle I showed that students mastery of the material was still uneven and that some student had not yet met the learning mastery criteria. Therefore, instructional improvements were implemented in Cycle II by of the material, and increasing students demonstration method. The result of Cycle II indicated a significant improvement in learning outcomes in both Indonesian Language and Natural Sciences subject. A total of 18 students, or 90.47%, achieved scores in the

good to very good categories, exceeding the research success indicator, which required at least 75% of student to achieve learning mastery.

Based on these findings, it can be concluded that the demonstration method is effective in improving student mastery and understanding of Indonesian Language and Natural Sciences material among fourth-grade students at SDN Kembang Karang.

Keywords: *Learning outcome, demonstration method, Indonesian Language, Natural Sciences.*

INTRODUCTION

The learning process is essentially an interaction between students and a learning environment that is designed to achieve teaching objectives, namely the skills that are expected after students have undergone their learning experiences. Learning is a change in behavior that includes skills and habits, knowledge, understanding, attitudes, and aspirations.

In order for these changes to be more directed towards clear objectives, it is necessary to prepare materials for subjects, various skills, and other experiences. This is because the general objective of education itself is to prepare the younger generation to become independent, productive, and high-quality adults. As mandated in the law, the functions and objectives of National Education in general are as follows: "National Education serves to develop abilities and shape the character and civilization of a dignified nation in order to enlighten the life of the nation; it aims to develop the potential of students to become people who believe in and fear God Almighty, have noble character, are healthy, knowledgeable, skilled, creative, independent, and become democratic and responsible citizens." (Ministry of Education and Culture, 2004: 5).

To achieve these objectives, the government has issued various policies, one of which is the formulation of a National Education System Act specifically designed to improve the quality of education.

In an effort to improve educational quality and to realize a qualified society are a shared responsibility, particularly in preparing learners to become active subjects who are increasingly capable of demonstrating personal excellence that is resilient, creative, and professional in their respective fields (Mulyasa, 2004: 3).

In improving education, one of the most important components is the role of teachers as instructors, mentors, and guides for their students. As educators, teachers are not only required to carry out their duties professionally, but they must also possess adequate professional knowledge and competencies. As stated by Solaeman (2002:115), becoming a good teacher cannot rely solely on talent, desire, emancipation, or environment; rather, it requires sufficient practice accompanied by study and training, which in turn fosters enthusiasm and enjoyment in teaching.

Learning issues constitute the core of the educational process, as teaching and learning activities are expected to achieve educational goals in the form of behavioral change, which is the hope of all stakeholders. Ideally, every student should achieve optimal learning outcomes according to their individual abilities. However, in reality, many students encounter various obstacles in achieving satisfactory learning outcomes.

Students who successfully master the material taught by teachers generally do not pose significant problems in education. In contrast, students who fail to master the learning material tend to experience learning difficulties. The learning difficulties experienced by fourth-grade students of SDN 1 Kembang Kerang vary in degree, including difficulties in understanding and memorizing learning material (cognitive difficulties), as well as difficulties related to affective and psychomotor aspects.

Based on the above description, completing learning material comprehensively requires certain assistance or additional activities to ensure tasks can be accomplished properly. In addition to preparing lesson plans and conducting assessments, teachers are also required to address students' learning difficulties so that these problems can be resolved. One form of effort to overcome students' learning difficulties is through the implementation of remedial teaching programs, which aim to assist students experiencing learning difficulties so that they can achieve adequate academic performance through corrective and improvement processes.

Thus, several important issues should be noted. One of them is the reality observed in the field, based on both observation and evaluation activities conducted on 20 fourth-grade students of SDN 1 Kembang Kerang during the first semester of the 2010/2011 academic year in Indonesian Language and Natural Sciences subjects. The results obtained were considered unsatisfactory. In Indonesian Language, only five (5) out of 20 students achieved mastery scores above 70, while in Natural Sciences, only three (3) students achieved scores above 70. The remaining students demonstrated an average level of mastery below 60.

Based on observations, the most dominant factors contributing to students' low achievement in Indonesian Language and Natural Sciences among fourth-grade students of SDN 1 Kembang Kerang were identified. In response to these problems, the researcher conducted a study entitled **“Improving Speaking Skills (Indonesian Language) and Understanding of Various Forms of Energy (Natural Sciences) through the Demonstration Method among Fourth-Grade Students of SDN 1 Kembang Kerang, Academic Year 2010–2011.”**

RESEARCH METHOD

This study is classified as descriptive qualitative research. According to Bogdan and Taylor (as cited in Moleong, 2005:4), qualitative research is a

research procedure that produces descriptive data in the form of written or spoken words derived from people and observable behaviors.

The method employed in this study is Classroom Action Research (CAR). Classroom Action Research is a type of research conducted by teachers in their own classrooms or schools, with an emphasis on refining or improving teaching practices and learning processes (Susilo, 2007:16).

According to Susilo (2007:17–18), the primary objective of Classroom Action Research is to improve and enhance the quality of learning processes in the classroom. In addition, CAR aims to continuously improve teaching practices as well as student and teacher activities during the learning process (Aqib, 2006:18). In this type of research, the teacher acts not only as a researcher but also as a practitioner who directly implements the learning process. Teachers are able to examine their own teaching activities by involving students through systematically planned actions.

This study employed a Classroom Action Research design, which was conducted through three main stages: planning, action implementation, and reflection. The research was carried out in two learning cycles, each consisting of planning, action, and reflection stages. The study was conducted in Grade IV of SDN 1 Kembang Kerang from 14 October to 12 December 2010.

At this stage, the teacher prepared all the necessary components required for the implementation of Classroom Action Research. The preparation was carried out gradually and continuously, beginning with the development of lesson plans (RPP) for Cycle I through Cycle II. In addition, the teacher prepared learning materials for each cycle, adjusted to the learning objectives and students' characteristics. Instructional media supporting the demonstration method were also prepared to ensure that the learning process was more engaging and easier

for students to understand. Furthermore, student worksheets (LKS) were prepared and used throughout Cycle I and Cycle II to support students' understanding and active participation in the learning process.

Research data were obtained from both the learning process and learning outcomes in Indonesian Language and Natural Sciences lessons implemented using the demonstration method. Process data consisted of observation results of teacher and student activities during the learning process. These observations were conducted to examine the extent to which learning activities were implemented as planned and to assess the level of student participation at each stage of learning. Meanwhile, learning outcome data were obtained from students' achievement after participating in the learning activities in each cycle.

The indicators of success in this Classroom Action Research were reviewed from two aspects: learning process and learning outcomes. From the process aspect, the research was considered successful if teacher and student activities during learning were categorized as good or very good, reflecting active student involvement and effective classroom management by the teacher. From the outcome aspect, success was determined if at least 85% of students achieved the minimum competency standard based on the Minimum Competency Standard (SKM), namely obtaining a minimum score of 68.

At the reflection stage, the researcher analyzed all data obtained, including data from the planning stage, action implementation, and learning outcomes achieved in each cycle. The data were analyzed to examine the alignment between the implemented actions and the predetermined research hypotheses. In addition, the researcher reviewed the learning outcome data to identify any shortcomings or obstacles encountered during the learning process. Learning materials that had not been optimally understood by students were then revisited and explained based on the learning plan. This stage also involved interpreting and drawing

conclusions from the data, as well as examining the relationship between the applied learning method and the planned actions, which served as the basis for improvement in the subsequent cycle.

RESULTS & DISCUSSION

Cycle I

Pra Cycle

Based on preliminary studies conducted through observation, interviews, and questionnaires in the second and third weeks of November 2010, data shows that students' proficiency in Indonesian language and natural sciences is still low. This is evidenced by the following BI scores.

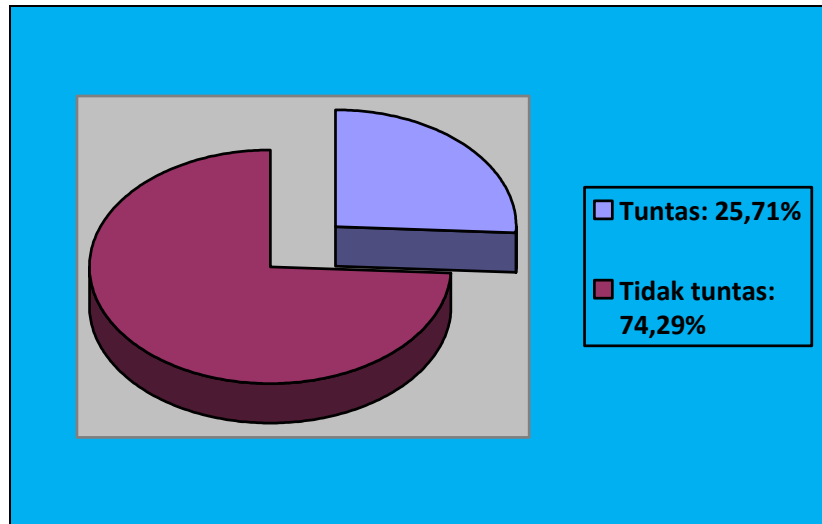
Tabel 01

Recapitulation of Students' Writing Data

No	Qualification	Number of Participants	Percentage
1.	A (Very Good)	0	0%
2.	B (Good)	1	2,86%
3.	C (Fair)	5	22,86%
4.	K (Poor)	16	74,29%

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Diagram 01
Pre Cycle student pass rate



To that end, the researchers developed an action plan in the form of a learning scenario for Indonesian language and natural sciences using a demonstration model. The learning scenario was designed for two meetings, with each meeting allocated two hours of teaching time (2 x 40 minutes). The learning sessions were held on Wednesday and Thursday, October 8 and 9, 2010.

The researchers and their collaborators developed learning evaluation tools, both in terms of process and results. In terms of process, these tools took the form of observation sheets for teacher and student activities. Further details on the teacher and student observation sheets can be found in Appendices 6 and 7. In terms of results, these tools took the form of a news text assessment rubric covering aspects, descriptors, scores, and mastery criteria.

Implementation

The implementation of Cycle I began with preliminary activities carried out by the teacher, namely providing apersepsi, motivation, and asking students about their readiness to participate in learning. Once the students were ready, the

learning activities continued with observing examples of news taken from newspapers or magazines and distributed by the teacher. Through this activity, students were invited to understand the meaning and significance of a news story. The learning process was quite active, marked by questions and answers between the teacher and students. Next, the teacher directed the students to the core activity by conveying the basic competencies to be achieved, the learning objectives, and the activity plan to be implemented in that meeting.

Learning in Cycle I applied a demonstration model that emphasized group work. Therefore, students were divided into seven groups, each consisting of five students. This division of groups aimed to increase cooperation, active participation, and students' understanding of the learning material presented.

Based on the problem formulation and alternative solutions that have been determined, learning activities are designed differently according to the characteristics of each subject. In Indonesian Language, teachers systematically develop learning scenarios, provide adequate facilities and infrastructure, and give sufficient examples when delivering material so that students can more easily understand the learning material. In addition, teachers give assignments to students both individually and in groups, and prepare observation sheets used by observers to record the activities of teachers and students during the learning process.

In science, teachers deliver learning materials clearly and accompany them with questions to explore students' understanding. Teachers also give students the opportunity to ask questions about material they do not understand and motivate them to be more enthusiastic and active in learning.

The implementation stage was carried out with reference to the problems found in Indonesian Language and Science learning. The learning steps carried out

included apersepsi activities, delivery of information about the learning objectives and tasks to be achieved, explanation and description of various forms of energy, completion of practice questions followed by questions and answers, and provision of evaluation questions and feedback. During the implementation of the action, the teacher monitored the learning process thoroughly using data collection instruments that had been prepared in advance. Thus, the demonstration method could be implemented optimally in Indonesian language and science learning.

Reflection

Based on the data presented in Table 1, the learning outcomes of fourth-grade students at SDN 1 Kembang Kerang in the Indonesian Language subject during the first meeting of Cycle I show that students' abilities were not yet evenly distributed. Of the 21 students, nine students (42.85%) achieved scores in the range of 80–90, eight students (30.09%) scored 70, three students (14.28%) scored 60, and one student (4.76%) scored 50. These results were obtained from a test conducted before the learning intervention was fully implemented. A clearer picture of the percentage of student success in answering Indonesian Language questions is shown in the student learning outcomes graph. The findings indicate that although some students had achieved high scores, several others had not yet met the expected level of mastery.

During the second meeting of Cycle I, reflection was carried out based on students' learning outcomes in the Natural Sciences subject, as presented in Table 2. Of the 21 students, nine students scored between 80–90, eight students obtained a score of 70, three students scored 60, and one student scored 50. The variation in these scores suggests that students' understanding of the Natural Sciences material also differed. The percentage of student success in answering Natural Sciences questions is illustrated in the student learning outcomes graph.

This assessment was based on the results of a test administered prior to the implementation of the next cycle.

After obtaining an initial overview of students' mastery of the Indonesian Language and Natural Sciences materials in Cycle I, the teacher began to carry out follow-up actions by assigning tasks to the students. The task assignment started with the presentation of various situational descriptions related to the learning material to each student. These descriptions were prepared in accordance with the lesson plan that had been previously developed. The results of this activity provided an initial picture of students' abilities after the learning intervention was implemented.

In response to these results, the teacher and students then carried out follow-up activities as preparation for the next cycle. The teacher attempted to re-explain the learning material more clearly through question-and-answer sessions, particularly focusing on parts of the material that were still considered difficult by the students. In addition, the teacher provided broader opportunities for students to ask questions and offered motivation to help them become more confident and actively involved in answering questions and participating in the learning process.

Based on observations of learning activities, the implementation of learning in Cycle I generally proceeded according to plan. However, several aspects still needed improvement. Some learning activities had not yet been carried out optimally, including the clarity of the teacher's explanations regarding the objectives and steps of learning activities, the provision of opportunities for students to ask questions, and students' discipline in following instructions and completing the tasks given by the teacher. These findings served as material for reflection and as a basis for improving the implementation of learning in the next cycle.

Cycle II

Pra cycle

The planning for the second action was developed based on the shortcomings and unresolved issues identified in Cycle I. Based on the reflection results from Cycle I, the researcher made adjustments and improvements to the learning steps so that the learning objectives could be achieved more optimally.

In the Indonesian Language subject, the teacher planned a more focused and systematic learning scenario. The teacher also prepared adequate learning facilities and resources to support the implementation of the demonstration model. In delivering the material, the teacher planned to provide more examples that were clearer and more concrete to help students better understand the material being studied. In addition, the teacher planned to assign tasks to students, both individually and in groups, as an effort to improve students' understanding and participation. To support observation activities, the teacher also prepared observation sheets to be used by observers during the learning process.

In the Natural Sciences subject, the action planning focused on the clarity of material delivery accompanied by guiding questions to explore students' understanding. The teacher also planned to provide wider opportunities for students to ask questions about material they had not yet understood. In addition, the teacher prepared motivational strategies to encourage students to be more active, confident, and enthusiastic in participating in the learning process.

With the action planning in Cycle II, it was expected that the learning implementation would be more effective and able to address the issues that still emerged in Cycle I, leading to improved student learning outcomes in both Indonesian Language and Natural Sciences subjects.

Implementation

Based on the problems that were still found in Indonesian Language and Natural Sciences learning in Cycle I, the implementation of actions in Cycle II was carried out using improved steps. The learning activities began with an apperception activity to connect the material with students' prior knowledge. The teacher then conveyed information regarding the learning objectives and tasks to be achieved. In the Natural Sciences subject, the teacher explained and described

various forms of energy in a clearer and more concrete manner. The learning activities continued with the completion of practice questions accompanied by question-and-answer sessions, and were concluded with evaluation questions and feedback on students' work.

During the implementation of the actions, the teacher conducted comprehensive monitoring of the learning process using the data collection instruments that had been prepared. This monitoring aimed to ensure that the demonstration method could be applied optimally in both Indonesian Language and Natural Sciences learning.

At the first meeting of Cycle II, the teacher provided opportunities for all students to answer the questions that had been given. This activity aimed to obtain a further picture of students' mastery of Indonesian Language material after improvements in instruction had been made. Through the demonstration approach, students engaged in classroom learning activities by revisiting and discussing the tasks they had completed. After all questions had been discussed and answered, the teacher carefully reviewed the results to obtain data on students' learning outcomes.

Unlike the first meeting of Cycle I, which still focused on identifying students' initial abilities, this activity was no longer carried out at this stage. In the first meeting of Cycle II, the teacher redistributed the question sheets along with students' answers from Cycle I. Students were then asked to review the questions based on the teacher's feedback and explanations. Subsequently, students practiced answering the questions again in groups as a form of reinforcement of their understanding of the material.

The improvement in students' mastery of Indonesian Language material after the implementation of actions in the first meeting of Cycle II can be seen in

Table 3. Based on these data, a total score of 157 was obtained, with a class average score of 7.47. These results indicate an improvement in students' abilities compared to the previous cycle.

At the second meeting of Cycle II, the learning activities focused on the Natural Sciences subject. The teacher provided opportunities for each student to answer the prepared questions in order to obtain an overview of the development of students' mastery of the material. After all students completed the exercises, the teacher thoroughly reviewed the students' work.

The data on students' learning outcomes in the Natural Sciences subject after instructional improvements in the second meeting of Cycle II are presented in Table 4. Based on these data, a total score of 169 was obtained, with a class average score of 8.04. These results indicate that students' mastery of Natural Sciences material improved and became more evenly distributed compared to the results in the previous cycle.

Reflection

Reflection in Cycle II was conducted to determine the extent to which the implementation of learning actions was able to improve students' mastery of the material in the Indonesian Language and Natural Sciences subjects.

After the implementation of the first meeting of Cycle II, students were asked to refine their answers to the given questions and continue with practice activities using the revised questions. At this stage, students showed varied results. However, since the learning activities in this cycle were a repetition of similar activities in Cycle I with certain improvements, the learning process ran more smoothly and in a more structured manner.

The students' learning outcomes in the first meeting of Cycle II showed a significant improvement compared to those in Cycle I. In similar activities during Cycle I, two students obtained fair scores (60), eight students obtained good scores (70), nine students obtained very good scores (80), and one student obtained the highest score (90). Meanwhile, in the first meeting of Cycle II, only one student obtained a low score (50), one student obtained a fair score (60), eleven students obtained very good scores (80–90), representing approximately 52.38%, and eight students obtained good scores (70), representing approximately 38.09%.

Based on these data, it can be concluded that Indonesian Language learning in the first meeting of Cycle II experienced a clear improvement in learning outcomes. Therefore, Indonesian Language learning through the implementation of the demonstration method can be considered successful.

The second meeting of Cycle II served as the final stage of the research action implementation. At this stage, students once again refined their answers to the given questions and continued with practice activities using the revised questions. Similar to the first meeting, the learning activities in this second meeting were a repetition of those in the previous cycle, with an emphasis on improving the learning process.

The reflection results indicated better improvement compared to the outcomes in Cycle I. In similar activities during Cycle I, four students obtained low scores (50), seven students obtained fair scores (60), five students obtained good scores (70), and three students obtained very good scores (80). In contrast, in the second meeting of Cycle II, no students obtained low scores (50). Only one student obtained a fair score (60), five students obtained good scores (70), and as many as fifteen students obtained very good scores (80–90).

These data indicate that Natural Sciences learning using the demonstration method had a positive impact on improving students' learning outcomes. Based on the overall results obtained in Cycle I and Cycle II, it can be concluded that after students were given learning actions over two cycles, their mastery and understanding of the material in both Indonesian Language and Natural Sciences subjects improved significantly. The results shown in Table 3 indicate that after the implementation of Cycle II, as many as 18 students (90.47%) achieved scores in the good to very good categories, with average scores ranging between 7 and 8. This indicates that students' mastery of the material was very good. Meanwhile, based on Table 4, 18 students (90.47%) obtained scores in the high category (8–10), indicating that students had mastered the Natural Sciences material well.

Thus, the research success indicators were achieved, namely that at least 75% of students demonstrated good mastery and understanding of the material. Based on the obtained data, the percentage of student mastery exceeded this indicator, reaching 90.47%. Therefore, this classroom action research was declared successful and did not require the implementation of further cycles.

CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that the application of the demonstration method in Indonesian Language and Natural Sciences learning has a positive impact on improving students' mastery and understanding of the material. This method allows students to not only receive information verbally, but also to directly observe processes, examples, and phenomena related to the learning material. Thus, learning becomes more meaningful and easier for students to understand.

The demonstration method is implemented through several interrelated stages, namely the preparation stage, the teaching and learning activity stage, and

the implementation stage. In the preparation stage, teachers design learning scenarios, prepare media, and determine demonstration steps that are appropriate for the material. This stage is an important foundation for successful learning because it determines the direction and clarity of the activities to be carried out in the classroom. Next, in the teaching and learning activity stage, students are actively involved in observing, discussing, and answering questions related to the material. Student involvement in this process encourages curiosity and increases student attention to learning. The action implementation stage is the implementation and evaluation stage, where teachers observe student responses and measure the level of mastery of the material through exercises and evaluations.

The results of the study show that after repeated interventions up to the second cycle, there was a significant increase in students' mastery and understanding, both in Indonesian Language and Natural Sciences. The data obtained shows that more than 75% of students achieved a very good category. In fact, based on the evaluation results after the second cycle, 18 students or 90.47% obtained an average score between 7 and 8 in Indonesian Language, indicating that most students were able to master the material very well. Similar results were also shown in Natural Sciences, where 18 students or 90.47% obtained high scores in the range of 8 to 10, indicating optimal mastery of the material.

This achievement confirms that the research success indicators have been met. The success criteria set, namely that at least 75% of students have excellent mastery and understanding of the material, has been significantly exceeded. With a completion rate of 90.47%, the demonstration method has proven to be effective in improving the quality of learning and student learning outcomes.

Overall, this study provides evidence that the demonstration method can be an effective and relevant alternative learning strategy to be applied in Indonesian

Language and Natural Sciences learning in elementary schools. This method not only improves learning outcomes but also encourages active student involvement in the learning process. Therefore, the application of the demonstration method is recommended to be further developed and adapted to the characteristics of the material and student needs so that learning becomes more optimal and meaningful.

AI Declaration

The authors declare that Artificial Intelligence (AI) tools were used only as assistive instruments during the preparation of this manuscript. Specifically, [name of AI tool, e.g., ChatGPT, Grammarly, Quillbot] was used to support language clarity, grammar, and formatting. The AI tool did not generate, fabricate, or manipulate research data, analysis, interpretations, or references. All AI-generated outputs were carefully reviewed, verified, and edited by the authors, who take full responsibility for the content of the manuscript. This use of AI complies with the Publication Ethics and Malpractice Statement of the *Journal of Pragmatics Research*.

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JOURNAL OF PRAGMATICS RESEARCH uses *APA 7th referencing style*. The references should be in alphabetical order; use Cambria (12), 1,5 spaced. **The minimum requirement of the number of references is between 30-60 references and 40-80 % taken from reputable international journals.** It is preferable to have academic journals as the references published in the last 5-10 years except for main references of particular theories. It is suggested to apply reference software like *Mendeley, Zotero* or *Endnote*.

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