



Use of demonstration methods with concrete media to improve the learning outcomes of science students in grade IV elementary school GP Berea Tondano Tondano Barat District Minahasa

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Abstract

The purpose of this study is to describe the use of demonstration methods with concrete media in natural science learning in class IV SD Tondano GP. Furthermore, the improvement of science learning outcomes through the use of demonstration methods with concrete media in science learning in grade IV SD GP Tondano. In this study, researchers used a demonstration method with concrete media in science learning with a focus of research, firstly, the teacher's skills in using the demonstration method with concrete media in science learning in grade IV SD Tondano GP. Second, the improvement of science learning outcomes through the application of demonstration methods with concrete media to fourth grade students of SD Tondano GP. The results showed changes in learning outcomes where Pre-Cycle 60%, complete 5 students and not complete 10. Researchers then implemented CAR and the results in the first cycle increased to 69%, 9 students completed and 6 unfinished. Then the researchers continued in the second cycle and found satisfying results where 14 students were able to reach even exceed the KKM and 1 student was still below the KKM then the researchers conducted a remedial. The completeness obtained in the second cycle is 75%. Thus the use of demonstration methods with concrete media provides increased student learning outcomes in science learning materials.

Keywords: demonstration method, concrete media, learning outcomes

Introduction

Education is able to form students who can develop their attitudes, skills and intellectual intelligence to become skilled, intelligent, and noble human beings. Education has an important role in efforts to increase human resources for the better. National education functions to develop capabilities and shape the nation's character and civilization with dignity in order to educate the nation's life, aiming at developing the potential of students to become people of faith and devotion to God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and be a democratic and responsible citizen.

Education is a long-term investment that requires great effort, this is recognized by all people or a nation for the sake of its future. Likewise, Indonesia has high hopes for education in life. In line with the above, developed a climate of teaching and learning that can foster confidence and attitudes and behaviors that are innovative and creative. Thus national education will be able to realize human development that can build itself and jointly be responsible for the integrity of the Unitary State of the Republic of Indonesia. Because of the importance of natural science education in primary schools, every teacher is expected to teach students creatively, actively and innovatively. This is to prevent students who are lazy from school, lazy to learn, timid, afraid of speaking, lack of mastery of teaching materials and students who do not make homework and students who are less able to give correct answers to questions and also lack of interest in learning to students because of the selection of learning methods applied is still less varied so that it is less attractive to students and makes students become bored in learning.

Besides that, science learning is only conveyed through the lecture method, tends to place the teacher as the only source of learning and less attention to individual student differences. This causes gaps between students in achieving learning goals due to the level of student understanding which is not the same where there are students to quickly and easily understand the subject matter even by listening to the teacher's explanation, but there are also students who have difficulty in understanding the subject matter delivered due to teaching methods the teacher is only lecturing, passive learning and monotonous boring so as to make students less creative and ultimately do not gain meaningful learning experiences.

Based on observations made at SD GP Berea Tondano, West Tondano District in natural science learning, there are several causes of problems that arise, namely, the creation of two-way learning in this case learning is still not centered on students, teachers still lack the models and learning media, teachers rarely conduct ways of presenting science subject matter through experiments to students so that the teacher's books and explanations become the main source in the learning process, so the element of concrete observation and proof through an experiment is rarely carried out. Based on student learning outcomes in science learning grade IV students are still low. This result can be seen from the tests conducted by teachers on the last odd semester exam where only 30% were completed out of 15 students. This means that only 5 students received a complete grade while 10 students did not meet the KKM standard.

Based on these observations, the problem now is how to find ways or methods of learning that are good for conveying various science concepts being taught so that

students can use and remember longer the concept. One appropriate method for overcoming this problem is to use demonstration methods with concrete media in the science learning process. The choice of demonstration method with concrete media in natural science learning is in line with what was revealed by Schoenher (Haryono, 2013) [5], namely that demonstration is an appropriate method for natural science learning, because demonstration methods and concrete media are able to provide learning conditions that can develop students' thinking abilities and creativity creatively optimal. Students are given the opportunity to arrange concepts in their cognitive structures, which can then be applied in their lives.

Recognizing and understanding where there are still problems but seeing the high enthusiasm of students' learning and curiosity about the growth of plants and being interested in something different in the natural environment, in such situations and conditions, guidance and direction are needed to improve and improve the quality of science teaching and learning. class and support the spirit of learning of students who like new things in order to increase the absorption and achievement of student learning outcomes is increased. In this connection, the method of demonstration with concrete media was chosen as the object of this study with the title "The use of demonstration methods with concrete media to improve the learning outcomes of Natural Sciences in grade IV SD GP Berea Tondano, West Tondano District, Minahasa Regency".

Method

1. Demonstration Method

Demonstration method is a method of teaching by demonstrating the goods, rules and sequence of doing an activity, both directly and through the use of learning media that are relevant to the subject matter or material being presented.

2. Concrete Media

Concrete media are media or objects that are used by educators when teaching and learning in class that can be seen directly and real by students. This concrete media also comes from objects that are easily obtained and easy to use so that it helps students to understand a lesson delivered by educators, therefore concrete media is very instrumental in the teaching and learning process.

3. Learning Outcomes

Learning outcomes are changes that occur individually to students, not only regarding knowledge, but attitudes and skills.

This class action research design (CAR) was conducted to test the effectiveness of the demonstration method with concrete media in improving student learning outcomes in science learning in class IV SD Tondano GP.

In this action research using planning procedures for implementing actions, observations and reflections according to Kemmis and MC Taggart (1988) [7].

Results and Discussion

The teacher encounters a problem in his class, especially about student learning outcomes in science learning, the problem is quickly resolved by the teacher. The right way is to carry out a form of class action or better known as Classroom Action Research (CAR). Based on the actions in cycle I, and II as explained and described the results of the

research cycle I, and II, it can be described that the quality of the learning process increases as well as student learning outcomes have increased and completeness.

The results showed changes in learning outcomes where Pre-Cycle 60%, complete 5 students and not complete 10. Researchers then implemented CAR and the results in the first cycle increased to 69%, 9 students complete and 6 incomplete. Then the researchers continued on the second cycle and found satisfactory results where 14 students were able to reach even exceed the KKM and 1 student was still below the KKM then the researchers conducted a remedial. The completeness obtained in the second cycle is 75%. Thus the use of demonstration methods with concrete media provides increased student learning outcomes in science learning materials. Based on the data description of cycle I and II, then in this discussion we can be sure there will be an increase in learning outcomes. The use of demonstration methods with concrete media provides solutions to the gap between expectations and reality. The increase in student learning outcomes in science learning is evident after seeing the data from the results of research using demonstration methods with concrete media. Thus, the researcher recommends that teachers who will teach on science learning materials can use demonstration methods with concrete media.

Conclusion

After the researchers carry out research actions systematically, planned, and carry out the learning process in accordance with the learning design research cycle I and II, and carry out what has been prepared. From the data obtained in the first cycle increased to 69%, 9 students completed and 6 did not complete. Then the researchers continued on the second cycle and found satisfying results where 14 students were able to reach or even exceed the specified KKM which is 70% completeness value obtained by 75%. This means that students have succeeded and completed the science learning material using demonstration methods with concrete media in class IV SD Tondano GP, West Tondano sub-district, Minahasa Regency.

Thus researchers can ensure that through the use of demonstration methods with concrete media can improve student learning outcomes in science learning materials for fourth grade students at SD Tondano GP, West Tondano District, Minahasa Regency

a. The use of demonstration methods with concrete media can increase science learning activities in fourth grade students at GP Tondano Elementary School, West Tondano District, Minahasa Regency.

b. The use of demonstration methods with concrete media can improve student learning outcomes in science learning for fourth grade students of SD Tondano GP, West Tondano District, Minahasa Regency.

Suggestion

Departing from the description and pre-cycle data, cycle I, cycle II, to conclusions, researchers find evidence and accurate data so that researchers can suggest the following matters:

1. To teachers who want to make improvements in science learning outcomes in class IV, can use demonstration methods with concrete media.
2. It is recommended that teachers of Class IV Elementary Schools use demonstration methods with concrete

media because they are able to improve learning outcomes and create effective learning, in learning science.

Daftar Rujukan

1. Aqip WZ. Penelitian Tindakan Kelas. Yrama Widya. Bandung, 2006.
2. Ekawarna. Penelitian Tindakan Kelas, edisi Revisi. Jakarta: Referensi GP Press Group, 2013.
3. Endang. Penelitian Tindakan Kelas dan Peningkatan Profesionalitas Guru. Bandung: PT. Refika Aditama, 2012.
4. Hamalik O. Perencanaan Pengajaran Berdasarkan Pendekatan Sistem. Jakarta: Bumi Aksara, 2003.
5. Haryono. Pembelajaran IPA yang menarik dan menyenangkan: Teori dan Aplikasi PAIKEM. Yogyakarta: Kepel Press, 2013.
6. Jennah R. Media Pembelajaran. Banjarmasin: Antasari Press, 2009.
7. Kemmis, Stephen dan Mc Taggart Robin. (dalam Aqip Zainal). The Action Research, Reader. Victoria: Deakin University, 1998.
8. Kunandar. Guru professional. Jakarta: PT. Rajawali Grafindo Persada, 2007.
9. Mufarokah. Strategi Pembelajaran. Yogyakarta: Teras, 2009.
10. Mulyani S dkk. 2004. Media Pembelajaran. Jakarta: Rineka Cipta, 2004.
11. Slameto. Belajar dan Faktor-faktor yang mempengaruhi. Jakarta: Rineka Cipta, 2012.
12. Soeitoe. Psikologi Pendidikan Jilid 1. Jakarta: Fakultas Ekonomi Universitas Indonesia, 1973.
13. Susanto A. Teori Belajar dan Pembelajaran di Sekolah Dasar. Jakarta: Kencana Prenada Media Group, 2013.
14. Hasibuan dan Mujiono JJ. Proses Belajar Mengajar. Bandung: PT. Remaja Rosdakarya, 1993.
15. Teresia Rosnita. Penerapan Metode Demonstrasi untuk meningkatkan Aktivitas Belajar dalam Pembelajaran IPA dikelas IV FKIP Universitas Tangjungpura Pontianak, 2012.
16. Yulianingsih. Penerapan metode demonstrasi dalam pembelajaran IPA terhadap Hasil Belajar Siswa kelas IV SDN Segedong, 2012.
17. Meilinda. Upaya meningkatkan hasil belajar siswa dengan penerapan metode demonstrasi pada pembelajaran IPA di kelas V SDN Bermani Ilir Kepahiang, 2012.
18. Metode pembelajaran terpadu, konsep, strategi dan Implementasinya dalam kurikulum Tingkat Satuan Pendidikan (KTSP). Jakarta: PT. Bumi Aksara, 2012.
19. Kurikulum KTSP (Depdiknas) IPA berhubungan dengan cara mencari tahu tentang alam secara sistematis, 2006.
20. Undang. undang Tentang Sistem Pendidikan Nasional Tahun, 2013.