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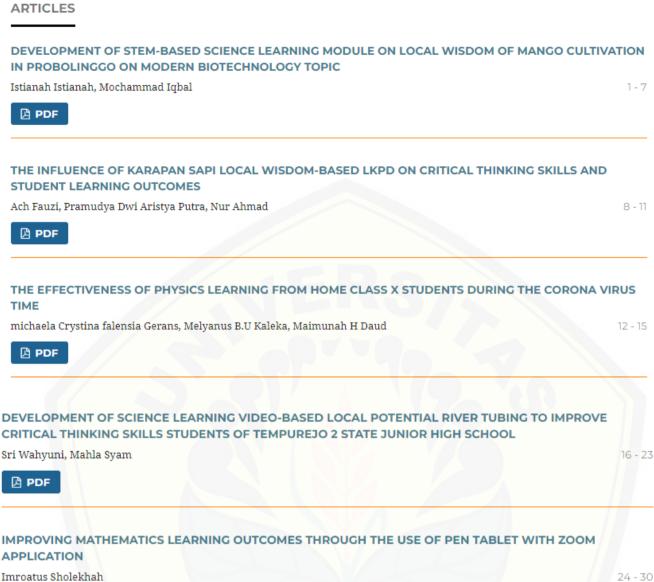
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THE INFLUENCE OF KARAPAN SAPI LOCAL WISDOM-BASED LKPD ON CRITICAL THINKING SKILLS AND STUDENT LEARNING OUTCOMES

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Abstract

Critical thinking skills are one of the abilities that students need to have in learning because of the development of science. The formulation of the problem is how the influence of LKPD Based on Local Wisdom Karapan Sapi on critical thinking skills and learning outcomes. The difference from previous research is that local wisdom is chosen to be integrated into science learning. The purpose of this research is to know the effect of LKPD Based on Local Wisdom Karapan Sapi on critical thinking outcomes. The method used was Quasi Experiment and then statistical analysis . The result of the t-test data analysis is the value of Sig. (2-tailed) 0.000 <0.05, meaning that there is a significant difference between the experimental class and the control class. LKPD based on local wisdom is very helpful in learning science and aims to build the value of the nation's cultural character.

Keywords: Student worksheets; critical thinking skills; learning outcomes.

1. INTRODUCTION

Science is developing rapidly and globally, which has an impact on the way students learn in the world of education both in the form of work that can be socially meaningful, such as collaborating, innovating, making joint decisions. exchanging information and doing the right thing to become one of the aspects that need to be at the time. this. The ability to think critically is one of the abilities that students need to have. Research related to critical thinking skills by Liberna (2014) in Jakarta, Handriani (2015) in Mataram and Hayudiyani (2017) in Madura show that critical thinking skills are still weak (Agnafia, 2019). In science learning, it is still found that it is still lacking in relation to local wisdom, this can lead to a lack of consideration for students on several things that are around them. The purpose of learning to achieve educational goals is the need for appropriate learning strategies and the use of relevant teaching materials for students in the learning process, so that students have critical thinking skills it is necessary to improve the quality in the learning process (Yunita, 2018). Critical thinking is very helpful in improving student learning outcomes. In terms of the needs of teachers and students with the

existence of a student worksheet (LKPD) based on local wisdom.

Learning in schools, the teaching materials used vary as stated by Kulsum (2018) that a set of teaching materials can be in the form of videos, audio, books and the like that contain material. The process of preparing LKPD contains materials and assignments that are made in such a way as to achieve learning objectives. The benefits of using LKPD are helping teachers to determine student success in achieving learning goals, being able to develop process skills and scientific attitudes, making it easier for teachers to manage learning, helping teachers direct students to find concepts on their own or in groups (Noprinda, 2019).

All humans basically have the potential to be able to think critically, but not all of them can be used in various situations so efforts are needed to improve critical thinking skills. This effort was also conveyed by Lieung (2019) that critical thinking skills are needed with an increase in critical thinking disposition. Someone who has cognitive ability is having the ability to think critically. According to Ennis (in Fridanianti, 2019) critical thinking skills indicators consist of Focus, Reason, Inference, Situation, Clarity, Overview.

Critical thinking is the ability to solve problems and think seriously, carefully, actively in recognizing all the information obtained along with rational reasons. Critical thinking skills greatly impact student learning outcomes (Inscription. 2019). Learning outcomes are divided into three categories. namelv cognitive. affective. and psychomotor. Learning outcomes according to Ricardo (2017) cognitive (knowledge) alone cannot be said to be learning outcomes, but there is a change in better behavior (affective) and has skills (psychomotor). Therefore, changes in learning outcomes can be seen from behavior after the learning process, including cognition, emotion and mental movement.

2. RESEARCH AND METHOD

This study uses a Quasi Experimental method with a Pretest-Posttest Control Group Design. The research site is at SMPN 2 Pegantenan Pamekasan Madura. The population used was all 8th grade students and took samples by simple random sampling which was first tested for homogeneity. The experimental class uses LKPD based on local wisdom while the control class uses LKPD not based on local wisdom (ordinary). Data collection techniques are documentation related to the list of students as research subjects, and test results. This source is obtained from the principal or the teacher concerned. Observation, namely observing directly the learning process and the last test, namely Pretest and Posttest. The independent variable is LKPD based on local wisdom and the dependent variable is critical thinking skills and student learning outcomes. The research instrument used was RPP (learning program plan), rubric for assessing cognitive, affective, psychomotor and learning outcomes. The data analysis technique used normality test, homogeneity test and Independent Sample T-test.

3. RESULT AND DISCUSSION

The results of the data obtained from the experimental and control class research related to students' critical thinking skills were analyzed using the criteria of critical thinking ability. The learning outcomes data were then analyzed statistically by the Independent Sample T-test. Students' critical

thinking skills before being given treatment, each student has a different level of critical thinking ability with an average of being in the fairly critical category. After being given treatment, during learning there is an increase in critical thinking skills, this is due to the use of teaching materials based on local wisdom. The LKPD teaching materials used have several advantages such as knowing more about local wisdom or the surrounding culture, not only getting knowledge but local wisdom also being obtained by students, build the values of the nation's cultural character. LKPD based on local wisdom also triggers student interest in using the LKPD compared to using conventional LKPD.

Based on the results of data analysis, critical thinking skills have students' increased. The average value originally obtained by students is 52.6 with a less critical category, it is necessary to improve the quality of learning in the classroom. The value obtained for the average critical thinking skills is the combined value of each indicator of critical thinking skills. Critical thinking indicators including Focus, Reason, Inference, Situation, Clarity, Overview are integrated into LKPD based on local wisdom. The results of the critical thinking skills of students in the experimental class were on average critical. Information from the results of the research on critical thinking skills determined that the average score of the control class students was 53.5 while the experimental class was 84.5. Thus it is still in the less critical category in the control class and the experimental class is in the critical category. Improvement of critical thinking skills which originally had an average value of 52.6 to 84.5. Based on these results, students with critical thinking skills certainly have good cognitive abilities. From all the results that have been obtained, it shows that the LKPD based on local wisdom with the theme: Karapan Sapi shows that there is an influence on students' critical thinking skills.

Before conducting further research related to learning outcomes, the researcher observed the students' prior knowledge by giving pretest questions. The pretest and posttest questions consist of 5 questions in the form of descriptions. The average value of the control class pretest is 20.6 and the experimental class is 27.4. This value is then

tested for normality, the control class value is obtained based on the Sig value. (2-tailed) of 0.522 > 0.05, which means that it is normally distributed. The value of the experimental class is based on the value of Sig. (2-tailed) of 0.643 > 0.05, which means that it is normally distributed. The pretest scores of the control class and the experimental class were normally distributed. Furthermore, the average posttest scores for the control and experimental classes were 64.7 and 90.3. The posttest value was then tested for normality, in the control class based on the Sig value. (2tailed) of 0.712 > 0, 05 means normally distributed. The value of the experimental class is based on the value of Sig. (2-tailed) of 0.429 > 0.05, which means that it is normally distributed. The posttest scores of the control class and the experimental class were normally distributed. The next step is to use the Independent Samples Test to find out the difference in significance and obtain data based on the Sig value. (2-tailed) of 0.000 <0.05, meaning Ho is rejected, so there is a difference in the average student learning outcomes.

Based on previous research conducted by Numayani (2018), it states that learning outcomes are created and proven by changes for the better. In addition, according to Ricardo (2017) that learning outcomes do not only measure cognitive (knowledge), but there must also be changes in behavior that are better than before (affective) and have skills (psychomotor). Based on the analysis data in the experimental class, it shows that students have good cognitive abilities so that students' cognitive influences on student learning outcomes. The results of this study are in line with research conducted by Prasasti (2019) in his research which states that students' cognitive influences on student learning outcomes. In addition, researchers also measured the value of cognitive, affective and psychomotor.

4. CONCLUSIONS

The effect of LKPD based on local wisdom with the theme Karapan Sapi in straight motion learning used by researchers on students' critical thinking skills shows that the LKPD based on research results obtained has an effect on students' critical thinking skills with an average value of 84.5. The use of LKPD also affects student learning outcomes. The results of the data obtained by the researchers show that the value of student learning outcomes has an average of 90.3. Thus, there is an influence on LKPD based on local wisdom with the theme of karapan sapi in straight motion learning on critical thinking skills and learning outcomes of junior high school students.

5. REFERENCE

- Fridanianti. A., Heni. P., Yanuar. H. M. (2020). Analisis Kemampuan Berpikir Kritis Dalam Menyelesaikan Soal Aljabar Kelas VII SMP 2 Pangkah Ditinjau Dari Gaya Kognitif Reflektif Dan Kognitif Impulsif. Aksioma, 9(1), 11–20.
- Handriani, Lia, Harjono, at all. (2015). Pengaruh Model Pembelajaran Inkuiri Terstruktur dengan Pendekatan Saintifik Terhadap Kemampuan Berpikir Kritis dan Hasil Belajar Fisika Siswa. Jurnal Pendidikan Fisika dan Teknologi, 1(3), 210–219.
- Hayudiani M., Arif M., Risnasari M. (2017). Identifikasi Kemampuan Berpikir Kritis Siswa Kelas X Tkj Ditinjau Dari Kemampuan Awal dan Jenis Kelamin Siswa di SMKN 1 Kamal. Jurnal Ilmiah Edutic, 4(1), 20–31.
- Kulsum, U., Septian, D. U., Saidil, M. (2018). Pengembagan Bahan Ajar Menulis Cerpen dengan Media *StoryBoard* pada Siswa Kelas X SMA. *Diglosia*, *1*(1), 1–12.
- Liberna dan Hawa. (2014). Peningkatan Kemampuan Berpikir Kritis Matematis Siswa Melalui Penggunaan Metode Improve pada Materi Sistem Persamaan Linear Dua Variabel. Jurnal Formatif, 2(3), 190 – 197.
- Lieung Karlina Wong. (2019). Pengaruh Model *Discovery Learning* terhadap Keterampilan Berpikir Kritis Siswa Sekolah Dasar. *Musamus Journal of Primary Education*, 1(2),73 – 82.
- Numayani. (2018). Penggunaan Model Pembelajaran *Word Square* untuk Meningkatka Hasil Belajar Siswa Pada Pelajaran Pendidikan Kewarganegaraan di Kelas V Negeri 054938 Kab. Langkat. *School*

Education Journal, 8(1), 35 – 47.

- Noprinda. C., Sofyan. M., Soleh. (2019). Development of Student Worksheet Based on Higher Order Thinking Skill (HOTS). *Indonesian Journal of Science and Mathematics Education*, 2(2): 168 – 176.
- Prasasti. D. E., Henny. D. K., Sri. G. (2019). Peningkatan Keterampilan Berpikir Kritis dan Hasil Belajar Matematika Melalui Model *Discovery Learning* di Kelas IV SD. *Jurnal Basicedu*, 3(1): 174 – 179.
- Ricardo, Rini. I. M. (2017). The Impacts of Students' Learning Interest and Motivation on Their Learning Outcomes. Jurnal Pendidikan Manajemen Perkantoran, 2(2): 188 – 201.
- Yunita. S., Salastri. R., Hermansyah. A. (2018). Analisis Kemampuan Berpikir Kritis Mata Pelajaran Kimia pada Siswa Kelas XI IPA SMAN 1 Kepahiang. Jurnal Pendidikan dan Ilmu Kimia, 2(1): 33 – 38.