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Implementation of *discovery learning* model assisted by E-LKPD against understanding social studies concepts in sixth grade elementary school

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ABSTRACT

This research is driven by the issues that arise from a lack of innovative media and the inadequate understanding of social studies concepts among sixth-grade elementary school students. This study aims to enhance students' comprehension of social studies concepts through the implementation of the E-LKPD-assisted Discovery Learning approach. The understanding of social studies among sixth-grade students remains insufficient due to the scarcity of creative media. By utilizing E-LKPD, an elementary school in Cimahi can address these challenges effectively through the Discovery Learning method. The study employs a one-group pre-test post-test design, utilizing a pre-experimental methodology. The participant group consists of thirty sixth-grade students. The normality test results from the pre-test indicated a significance value of 0.443, suggesting that the data is normally distributed. Similarly, the post-test results revealed a regularly distributed value with a significance value of 0.128. The findings indicate that sixth-grade elementary school students who engage in the Discovery Learning approach with support from E-LKPD exhibit a better understanding of social studies concepts.

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1. INTRODUCTION

Conceptual understanding is essential for students, particularly in elementary schools. It is vital for young learners to master the concepts being taught. This understanding enables students to tackle problems related to the concepts they have learned (Altaftazani et al., 2020). According to Khoirudin et al. (2022), conceptual understanding refers to the ability to grasp material presented in a clear and accessible manner, allowing for interpretation and effective application. Therefore, it is crucial for students to comprehend the information being communicated, enabling them to utilize its content without needing to relate it to other topics.

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Social Sciences (IPS) provides students with an understanding of how individuals and groups coexist and interact with their physical and social environments. The objective of learning Social Sciences is to enhance students' knowledge, social skills, and attitudes, equipping them for their future roles both as individuals and as members of society (Qurrotaini & Nuryanto, 2020). The term "Social Sciences" translates from "social studies" and is defined as the knowledge pertaining to human life's contexts within society, particularly concerning the challenges arising from these aspects. In this regard, the study of Social Sciences encompasses both social science disciplines and the cultivation of citizenship potential (Bulan et al., 2022).

Social studies education serves as a means of improvement and aims to enhance the quality of teaching and learning. It is particularly relevant in addressing life’s challenges in the contemporary era of globalization. In elementary schools, social studies encompass subjects that examine societal issues and developments from ancient times to the present. According to Endayani (2018), the primary objectives of social studies learning are: 1) to equip individuals with knowledge regarding appropriate behavior towards their surroundings; 2) to understand interpersonal relationships; 3) to foster awareness of how to engage with the community; 4) to promote knowledge about the surrounding environment; and 5) to establish an understanding of their relationship with a higher power.

Based on observations made during the Field Experience Practice (PPL) in a fifth-grade class at SDN Pambudi Darma, it was noted that students had a low understanding of social studies concepts. Many students perceive social studies as a tedious subject, primarily because the lessons rely heavily on textbook material, leading to a lack of motivation to engage with the content. Furthermore, this approach results in a passive classroom environment. In light of these findings, the researcher proposes a solution: implementing the Discovery Learning model supported by E-LKPD, which has the potential to enhance students' comprehension of social studies concepts.

2. METHODS

This study employs a pre-experimental design utilizing a one-group pre-test and post-test framework. According to Sugiyono (2017), this methodology can be effectively utilized to characterize the study design.

Table 1. The One Goup Pretest Posttest Design

Pretest	**Treatment**	***Posttest***
O_1	X	O_2

Source: Sugiyono (2017: 111)

Information :

O_1 =*Pretest* (Initial test to find out the initial situation student before applied *discovery learning model)*

X =Treatment/ Treatment (Learning with applied *discovery learning* model)

O_2 =*Posttest* (Final test to find out the final state after applied *discovery learning* model)

The study involved a total of 30 students from Grade V at a public elementary school in Cimahi City. The subjects were selected using a saturated sampling technique, meaning that the entire population was utilized as the research sample. Data collection was carried out through a test consisting of five short-answer questions. This test was administered twice: first as a pre-test before any treatment was given, and then again as a post-test after the treatment. For data analysis, techniques such as normality testing and t-tests were employed.

3. RESULTS AND DISCUSSION

3.1 Results

Based on the research results aimed at assessing the initial understanding of students before they receive treatment through discovery learning models, all participants were first administered a pre-test. Following this, they underwent treatment with the discovery learning model. Afterward, students took a post-test to evaluate their understanding following the treatment. Once the data was collected, the average scores were calculated to measure the improvement in student comprehension before and after the treatment.

Table 2. Data on the results of the pretest and posttest of abilities Understanding Draft

Sample (n)	**Average *Pretest***	**Average *posttest***
30	48.58	77.17

According to Table 1, the sample for this study consisted of 30 students. The average score (mean) for the pre-test assessing conceptual understanding was 30.87, while the average score (mean) for the post-test was 77.17.

***Pretest* and *Posttest* Normality Test**

In order to conduct a t-test, it is essential to first verify that the data follows a normal distribution. For this purpose, the Shapiro-Wilk statistical test will be employed in this study. The following criteria will be applied during the normality assessment:

The data is considered to have a normal distribution when the significance value exceeds 0.05. Conversely, if the significance level falls below 0.05, it indicates that the data does not follow a normal distribution. The results obtained from the normality test conducted in this study are as follows:

Table 1Results Test Normality Pretest and Posttest Ability Understanding Draft

Comprehension* Ability Result Data *Draft	***Shapiro Wilk***		
	Statistics	**Df**	**Sig.**
Pretest	.966	30	.443
Posttest	.946	30	.128

Based on the results presented in Table 1 from this study, the Shapiro-Wilk normality test indicates that the significance level for the pretest data is 0.443, and for the posttest data, it is 0.128. Both of these significance values are greater than 0.05, which suggests that the pretest and posttest data are normally distributed.

T- test

It is essential to confirm that the data is normally distributed before conducting a t-test. The purpose of the t-test is to determine whether there is a significant difference in the mean understanding of concepts among students before and after implementing the learning paradigm supported by E-LKPD. The hypothesis for this test is as follows:

H_a : There is an influence on students' conceptual understanding ability after applying the discovery learning model.

H_o : There is no influence on students' conceptual understanding ability after implementing the discovery learning model.

The following provisions apply: If the significance level is less than 0.05, the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. Conversely, if the significance level is greater than 0.05, the null hypothesis (H0) is accepted and the alternative hypothesis (Ha) is rejected. The results of the t-test are detailed below:

Table 2the Pretest and Posttest T-Test of Ability Understanding Draft

T	**Df**	**Sig. (2-tailed)**
-38,487	29	.000

The results of the t-test presented in Table 2 indicate a significance level (Sig. 2-tailed) of 0.000, which is less than 0.05. Therefore, the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted. This suggests that there is an influence on students' ability to understand drafting after implementing the innovative learning models supported by E-LKPD.

3.2 Discussion

The purpose of this study was to examine the impact of the discovery learning model, assisted by E-LKPD, on conceptual understanding. Discovery learning is a pedagogical approach that encourages students to take an active role in independently seeking information, which can enhance long-term retention of knowledge (Hamalik, 2015). Additionally, Cahyo (2013) describes discovery learning as a concept aimed at acquiring information through observation or experimentation. Based on these perspectives, it is evident that discovery learning is a model that requires students to engage actively in the learning process through observation and experimentation.

This study utilized the discovery learning model in conjunction with LKPD, which facilitates a smoother research process. According to the Ministry of Education and Culture (2013), LKPD is a tool that provides students with information about the activities they are expected to engage in during learning. Additionally, Widjayanti (2008) describes LKPD as a resource that aids the implementation of learning, which can be developed by educators. These two sources support the understanding that LKPD serves as a valuable resource for both educators and students, containing essential information about required activities. Moreover, it can be adapted by teachers to meet specific learning needs. This model and LKPD are applied simultaneously during the implementation study to generate pretest and posttest data.

Pre-test and post-test techniques were employed in the study. According to Haniah (2013), the normality test aims to determine whether the data is normally distributed. The t-test, as noted by Putri et al. (2023), is used to compare means. Initially, the researcher conducted a pre-test, which revealed that students in Class VI had certain levels of understanding of IPS concepts. The results from both the pre-test and post-test normality tests indicated significant values of 0.443 and 0.128, respectively, both greater than 0.05. This means that the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted, concluding that the pre-test and post-test results come from normally distributed data. Furthermore, the t-test yielded a significance (2-tailed) result of 0.000, which is less than 0.05. This also leads to the rejection of Ho and acceptance of Ha, indicating a significant improvement in understanding IPS concepts through the Discovery Learning model using E-LKPD assistance.

Based on the discussion above, it can be concluded that the implementation of the discovery learning model, supported by E-LKP, significantly enhances conceptual understanding. Therefore, this study asserts that "the discovery learning model positively impacts the ability to grasp concepts." This conclusion is further reinforced by the data analysis, which reveals a significant t-test result of 0.00, indicating a value less than 0.05. The observed impact is attributed to the discovery learning model, which promotes student independence and active participation in the learning process, facilitated by the use of E-LKPD.

5. CONCLUSION

Based on the findings and data analysis in this study, the results of the t-test showed a significance value of 0.00 or less than 0.05, indicating that the application of the Discovery Learning model assisted by E-LKPD affects conceptual understanding. This effect can be caused by the steps in the Discovery Learning model that encourage students to be more active in participating in classroom learning activities and become more independent learners. This also occurs due to the learning process assisted by E-LKPD which helps students understand the concept of the subject matter as a whole.

6. REFERENCES

Annisa, S. A., Ainy, F. N., Adelia, V. A., Istiqomah, I. A., & Ermawati, D. (2023). Pengaruh model *discovery learning* terhadap peningkatan pemahaman konsep matematis siswa kelas III Sekolah Dasar. *Jurnal Ilmiah Matematika Realistik (JI-MR*, *4*(2), 227–232.

Altaftazani, D. H., Rahayu, G. D. S., & Kelana, J. B. (2020, August). An analysis of basic interaction, communication, team building, and problem-solving skills of primary school

students in marching band activities. In *Elementary School Forum (Mimbar Sekolah Dasar)* (Vol. 7, No. 2, pp. 184-197). Indonesia University of Education. Jl. Mayor Abdurachman No. 211, Sumedang, Jawa Barat, 45322, Indonesia. Web site: https://ejournal. upi. edu/index. php/mimbar/index.

Bulan, S., Nursalam, N., & Nawir, M. (2022). Model pembelajaran berbasis masalah dalam pembelajaran IPS terhadap pemahaman konsep dan keterampilan proses peserta didik sekolah dasar. *Jurnal Ilmiah Mandala Education*, *8*(4), 2629–2641. https://doi.org/10.58258/jime.v8i4.3862

Cahyo, A., (2013). Panduan aplikasi teori belajar. Jakarta. PT. Diva Press

Fatmawati, R. A. (2022). Pengembangan program literasi sosial untuk meningkatkan pemahaman konsep IPS siswa sekolah dasar. *Edukatif : Jurnal Ilmu Pendidikan*, *4*(2), 1938–1951. https://doi.org/10.31004/edukatif.v4i2.1680

Hamalik, O. (2015). *Kurikulum dan Pembelajaran*. Jakarta: Bumi Aksara.

Haniah, N. (2013). Uji normalitas dengan metode liliefor. *Statistika Pendidikan*, *1* , 1-17. Kementrian Pendidikan dan Kebudayaan (2013) .Permendikbud No.81 A Kurikulum

Khoirudin, R., Sunarto, S., & Sunarso, A. (2022). Pengembangan modul dalam PBL untuk meningkatkan kemampuan pemahaman konsep IPS dan motivasi belajar siswa sekolah dasar. *Jurnal Basicedu*, *6*(3), 4442–4450. https://doi.org/10.31004/basicedu.v6i3.2770

Putri, AD, Ahman, A., Hilmia, RS, Almaliyah, S., & Permana, S. (2023). Pengaplikasian uji T dalam penelitian eksperimen. *Jurnal Lebesgue: Jurnal Ilmiah Pendidikan Matematika, Matematika dan Statistika* , *4* (3), 1978-1987.

Qurrotaini, L., & Nuryanto, N. (2020). Implementasi pendidikan mitigasi bencana alam gempa bumi dalam pembelajaran IPS SD. *Trapsila: Jurnal Pendidikan Dasar*, *2*(01), 37. https://doi.org/10.30742/tpd.v2i01.885

Suhaemi, A., Asih, E. T., & Handayani, F. (2020). Peranan media pembelajaran dalam meningkatkan pemahaman konsep belajar IPS SD. *Jurnal Holistika*, *4*(1), 36. https://doi.org/10.24853/holistika.4.1.36-45

Widjayanti. (2008). *Media lembar kerja peserta didik*: Jakarta. Rineka Cipta.