

# Students' Perceptions In-Deep Learning in Science Subjects in Elementary Madrasahs

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**Abstract:** The purpose of this study is to analyze students' perceptions of in-depth learning in the subject of science at MI Ma'arif Krakal. This study uses a descriptive quantitative approach. Respondents in this study were grade 5, 16 students. The data collection technique used a questionnaire. The data analysis technique used quantitative descriptive in the form of percentages. The results showed that 64% of students' perceptions of science lessons were classified as good.

**Keywords:** Perception of Science learning at MI Ma'arif Krakal Alian.

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## Introduction

The purpose of IPAS learning in the Independent Curriculum is to help students understand their environment as well as the natural and social phenomena around them, while also fostering curiosity about how the world works. Through this learning process, students are trained to think logically, critically, and creatively in processing information, analyzing, evaluating, and drawing conclusions. In addition, IPAS also develops students' ability to identify and solve simple problems in everyday life.

By understanding the universe as God's creation, it is expected that students will build faith, piety, and noble character. This learning also encourages independence and the ability to collaborate with others to achieve common goals, while equipping students with knowledge, concepts, and skills that serve as a foundation for further education.

The Regulation of the Minister of National Education of the Republic of Indonesia No. 41 of 2007 explains that IPAS learning activities must be interactive, inspiring, enjoyable, and challenging,

as well as able to increase students' motivation to participate actively. In addition, learning should also provide enough space for students to develop initiative, creativity, and independence according to their talents, interests, and their physical and psychological development (Yuliati, 2017). In this context, several learning approaches can be applied to create an effective and meaningful learning process.

Effective and meaningful learning allows students to construct their own knowledge through direct experience and interaction with their environment, while the teacher acts as a facilitator. Another approach is inquiry-based learning, which emphasizes the process of scientific discovery by involving students in asking questions, formulating hypotheses, conducting experiments, and drawing conclusions (Mulyani, 2017).

In addition, contextual learning connects the material with real-life situations so that students can understand the relevance of scientific concepts in everyday life. Collaborative learning also utilizes various media such as videos, simulations, computers, and manipulative materials to enrich

learning experiences and deepen the understanding of scientific concepts.

Perception is the view, assessment, or the way students understand and feel about the IPAS (Natural and Social Sciences) subject — in terms of the content, the teacher's teaching method, and the learning experiences they have. Students' perceptions of IPAS lessons are considered good when students feel happy with the learning process, as this can improve their academic performance.

Based on research conducted at MI Ma'arif Krakal, data showed that learning in the Natural and Social Sciences (IPAS) subject at the school has been implemented well. This study was conducted to determine how effective the IPAS learning process applied by the teacher was, and how students responded to the learning activities. From the questionnaires distributed to students, most gave positive responses regarding the teacher's teaching method, the use of learning media, and the classroom atmosphere that supports the learning process.

Previous studies have examined students' perceptions of learning, but only a few have specifically explored students' perceptions of IPAS learning. Jariyatussolihah (2024) studied students' perceptions of Pancasila education learning. The research results showed that perceptions of the TaRL approach in Pancasila education subjects affected the learning process, producing optimal results according to students' abilities. Meanwhile, Setiyorini (2013) conducted a study on students' perceptions of the use of quartet card game media in Social Studies subjects. The results showed that it could improve students' learning outcomes.

The purpose of this study is to analyze students' perceptions of deep learning in science subjects at MI Ma'arif Krakal. This study uses a descriptive quantitative approach. Respondents in this study

consisted of 16 fifth-grade students. The data collection technique used a questionnaire, while the data analysis technique used quantitative descriptive analysis in the form of percentages. The results showed that 64% of students' perceptions of science learning were classified as good.

## Method

This research approach uses a quantitative approach.

This type of research uses descriptive quantitative methods. Descriptive quantitative research is one of the approaches in research that aims to describe or explain a phenomenon, condition, or fact based on numerical or statistical data. Its main focus is to present information systematically and measurably without trying to explain cause-and-effect relationships between variables. Descriptive quantitative research is a type of study that uses numerical (quantitative) data to describe the characteristics of a certain population or phenomenon objectively and systematically (Prof. Dr. Sugiyono, 2018). The location of this research was MI Ma'arif Krakal. The number of respondents was 16 students. The data collection technique used a questionnaire with a Likert scale, which consisted of three alternative answer choices, namely: agree, somewhat agree, and disagree. The data analysis technique used descriptive quantitative analysis in the form of percentages.

**Table 1.** Categorization of Students' Perceptions.

| Score         | Category       |
|---------------|----------------|
| 33 – 100 = 67 | Agree          |
| 33 – 66 = 33  | Somewhat Agree |
| <33           | Disagree       |

## Research Results

### Students' Perceptions of Content/Material

| No | Statement                                 | Agree | Somewhat Agree | Disagree |
|----|-------------------------------------------|-------|----------------|----------|
| 1. | Science subjects are interesting subjects | 11    | 5              | 0        |
| 2. | Science is a difficult subject            | 5     | 8              | 3        |

|     |                                                                                                           |    |   |   |
|-----|-----------------------------------------------------------------------------------------------------------|----|---|---|
| 3.  | I like all the materials in science lessons.                                                              | 6  | 8 | 2 |
| 4.  | I like science lessons when theories are applied in class.                                                | 13 | 2 | 1 |
| 5.  | I like science lessons when applied through practicum methods.                                            | 8  | 7 | 1 |
| 6.  | The school facilities are adequate enough to serve as media in science learning.                          | 6  | 5 | 5 |
| 7.  | I am more active in science lessons than in other subjects                                                | 4  | 7 | 5 |
| 8.  | I like to connect things around the environment with science lessons (examples: lightning, sky, rainbow). | 12 | 3 | 1 |
| 9.  | I have a high curiosity about every topic in science lessons.                                             | 9  | 6 | 1 |
| 10. | I prefer doing group assignments rather than individual ones.                                             | 12 | 3 | 1 |

| No | Statement                                                                                                 | Frequency | Persentase |
|----|-----------------------------------------------------------------------------------------------------------|-----------|------------|
| 1  | Science is an interesting subject.                                                                        | 11        | 68,75%     |
| 2  | Science is a difficult subject.                                                                           | 5         | 31,25%     |
| 3  | I like all the materials in science lessons.                                                              | 6         | 37,50%     |
| 4  | I like science lessons when theories are applied in class.                                                | 13        | 81,25%     |
| 5  | I like science lessons when applied through practicum methods                                             | 8         | 50,00%     |
| 6  | The school facilities are adequate enough to serve as media in science learning.                          | 6         | 37,50%     |
| 7  | I am more active in science lessons than in other subjects                                                | 4         | 25,00%     |
| 8  | I like to connect things around the environment with science lessons (examples: lightning, sky, rainbow). | 12        | 75,00%     |
| 9  | I have a high curiosity about every topic in science lessons.                                             | 9         | 56,25%     |
| 10 | I prefer doing group assignments rather than individual ones                                              | 12        | 75,00%     |

Overall, the research results show that:

- Students have a high level of interest and fascination with science lessons, especially when presented in an applicable and contextual manner.
- Practical activities and the application of theory to everyday life significantly contribute to increasing student learning interest.
- Learning facilities remain a major obstacle that needs improvement.
- Students' active engagement in learning needs to be enhanced with more interactive and collaborative learning strategies.
- Contextual approaches and group work have proven to be effective methods for increasing student understanding and interest in science lessons.

## Discussion

This study primarily aimed to analyze the perceptions of fifth-grade students at MI Ma'arif Krakal regarding the implementation of deep learning in science. Based on quantitative descriptive analysis, the most prominent result was

the "good" category, which reached 64% of the total respondents. This figure implies that the majority of students have accepted and responded positively to learning approaches that require higher cognitive engagement, such as critical thinking, problem-solving, and connections between concepts, which are characteristic of deep learning. This 64% achievement indicates that the science learning methods or strategies implemented at MI Ma'arif Krakal have successfully broken down passive learning patterns or mere memorization, resulting in students finding the science material more relevant and meaningful. The 64% positive perception provides a strong basis for MI Ma'arif Krakal to maintain, and even expand, the in-depth learning strategy in science subjects. This figure confirms that the school is on the right track in improving the quality of students' scientific literacy at the elementary level. However, although the majority showed positive perceptions, the existence of 36% of students whose perceptions were classified as fair or poor cannot be ignored. Therefore, the recommended follow-up is to conduct additional qualitative studies, such as in-depth interviews or

classroom observations, to specifically explore the factors that cause these 36% of students to not fully experience the positive benefits of in-depth learning. The goal is to find adjustments to teaching strategies that can facilitate 100% of students to achieve an optimal level of in-depth understanding in science.

The purpose of this study is to identify, describe, and analyze the results of several primary studies on the effect of the PBL model on creative thinking skills in science. A systematic literature review (SLR) was used as the method in this study, through a search in the Google Scholar and DOAJ databases from 2018 to 2022, resulting in 15 primary studies that met the specified inclusion criteria. Each article was recorded and then classified by title, year of study, educational level, and type of research to be analyzed individually. The results of the study indicate that PBL has an influence on the development of students' creative thinking skills in science learning, because with the PBL model the learning process applies student-centered problem-based learning with the teacher acting as a facilitator, and involves students independently. discovery activities through collaboration between students in small groups to solve problems representatively. Therefore, PBL is suitable to be applied to achieve learning objectives and urgency, especially in developing students' creative thinking skills research by Ima Ishlahul 'Adiilah(2023). This test analysis aims to determine individual and classical completeness by referring to the minimum completeness criteria  $\geq 75$  and classical completeness  $\geq 85\%$ . The results of the study indicate that the implementation of science learning on the "Water Cycle" sub-material in Cycle I had an average student score (mean) increase of 77.6 compared to the previous pre-survey. Classical completeness also increased to 18 students (72%). This percentage indicates that there was a decrease in the number of students who had not yet achieved the specified KKM score, which was only 7 students (28%). Likewise, in Cycle II the graph of improvement was increasingly visible where the average student score (mean) became 81.48 and classical completeness reached 22 students (88%), so that the percentage of students who had not yet achieved the KKM score  $\geq 75$  was

only 3 students (12%). The conclusion of this study is that the Contextual Teaching and Learning (CTL) learning model is effective in improving the cognitive learning outcomes of science in class V students of MI Raden Intan Wonodadi, Gadingrejo District, Pringsewu Regency research by Ida Fiteriani (2016)

## Conclusion

Based on research conducted on fifth-grade students at MI Ma'arif Krakal regarding their perceptions of in-depth science learning, it can be concluded that:

- The majority of students (64%) had a favorable perception of deep science learning.
- Students showed the most positive responses when learning involved the application of theory in class, linking material to environmental phenomena, and group assignments.
- However, several aspects still need improvement, namely the availability of science learning facilities/infrastructure and the level of student engagement during the learning process.
- These results indicate that contextual, applicable, and collaborative learning strategies can improve students' understanding of science at the elementary school level.
- To achieve optimal outcomes for all students, it is recommended that schools evaluate and strengthen factors that influence less positive perceptions among some students.

**Conflict of Interest:** The authors declare that there are no conflicts of interest concerning the publication of this article.

## References

- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Yani Fitriyani. (2021). *Pengembangan Kreativitas Guru dalam Pembelajaran Kreatif pada Mata Pelajaran IPS di Sekolah Dasa*.

- Delina Andreani. (2023). *PERSEPSI GURU SEKOLAH DASAR TENTANG MATA PELAJARAN IPAS PADA KURIKULUM MERDEKA*.
- Tuti Rezeki Awaliyah Siregar. (2020). *LITERASI SAINS MELALUI PENDEKATAN SAINTIFIK PADA PEMBELAJARAN IPA SD/MI DI ABAD 21*.
- Suci Utami Putri. (2016). *MENINGKATKAN KOMPETENSI DAN EFFICACY MAHASISWA PGSD MELALUI PELATIHAN PENDALAMAN MATERI IPA BERBASIS BLENDED LEARNING*: Universitas Pendidikan Indonesia, repository.upi.edu
- Tri Wulandari. (2019). *Efektivitas Penggunaan Aplikasi CANVA sebagai Media Pembelajaran IPA MI/SD*

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