

The Effectiveness of Direct Learning Model in Science Learning for Grade IV at SDN Sindangbarang 03

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ABSTRACT

The effectiveness of implementing the Direct learning model in science learning at SDN Sindangbarang 03 has not been explored in depth. Understanding how this model is implemented, how students respond to and understand the science material delivered through this model, and the challenges and opportunities faced by teachers in its implementation. This study aims to understand the effectiveness of the Direct learning model in learning Natural and Social Sciences (IPAS) in grade IV of SDN Sindangbarang 03. This study uses a case study approach to explore students' learning experiences and teachers' perspectives related to the implementation of the Direct learning model in the subject of Science. The focus of the study includes teacher strategies, student involvement, conceptual understanding. Data collection was carried out through participatory observation, semi-structured interviews with grade IV teachers, and focus group discussions (FGD) with students. The collected data were analyzed qualitatively through the processes of transcription, reduction, categorization, and interpretation. The results of the study are expected to provide comprehensive insights into the contribution of the Direct learning model to students' understanding and interest in science subjects more effectively.

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1. INTRODUCTION

Natural Sciences plays a very important role in equipping elementary school children with knowledge about the environment and phenomena around them. Through the process of learning science, students are encouraged to improve their critical thinking, observation, and problem-solving skills, which are important foundations for higher education. However, in elementary schools, the challenge in teaching science often lies in how to change abstract concepts into clearer and more interesting ones for students.¹

At Sindangbarang 03 Elementary School, science learning for grade IV is one of the main concerns in efforts to improve the quality of education. Various teaching methods and approaches are applied to maximize students' understanding of science topics. One approach that is often used is direct teaching. This approach is known for its structured and teacher-focused delivery of information and examples.

¹Ayu Arina Putri, . I. (2025). Ilmu Pengetahuan Alam dan Bidang 4 Ilmu Pengetahuan Alam. *Jurnal Arjuna: Publikasi Ilmu Pendidikan, Bahasa dan Matematika Volume 3, Nomor 1*, 287-304.

The direct instruction model has the advantage of delivering material in an efficient manner, it is important to conduct an empirical evaluation of its effectiveness in the context of science learning for grade IV at SDN Sindangbarang 03. Understanding the extent to which this model can improve learning outcomes and student participation in science learning will provide valuable insights for educators in designing and implementing better teaching.

This study aims to examine in detail the effectiveness of the direct teaching model in science learning for grade IV at SDN Sindangbarang 03. It is hoped that the results of this study can provide practical contributions to improving the quality of science teaching at the school and become a reference for further research in the field of science education at the elementary school level. In direct learning, educators act as facilitators for all student activities in learning.²

2. RESEARCH METHODS

The approach used in this study is descriptive qualitative. Descriptive qualitative research is a research method aimed at describing certain existing and ongoing phenomena. The purpose of descriptive qualitative research is to describe the effectiveness of learning so that there is an increase in learning outcomes in Elementary School students.

Qualitative methodology was chosen to investigate in depth how students and teachers experience the application of direct learning models in science learning in grade IV SDN Sindangbarang 03, as well as to explore the perceptions and meanings that emerge during the teaching and learning process.

2.1 Research Focus

The focus of this research is to examine in depth:

1. The experiences of fourth grade students at SDN Sindangbarang 03 when participating in science learning with a direct learning approach.
2. Students' views on the direct learning method in helping them understand science material.
3. Obstacles and conveniences experienced by students during learning with a direct model approach.
4. Implementation of the direct learning model by fourth grade science teachers at SDN Sindangbarang 03.
5. Teachers' perspectives on how effective the direct learning model is in improving students' understanding of science material.
6. Contextual aspects that influence the implementation and effectiveness of direct learning techniques in science subjects in fourth grade at SDN Sindangbarang 03.

2.2 Subjects of the Study

The subjects of this study include:

1. Students: Several students from grade IV of SDN Sindangbarang 03 who will be selected using a purposive sampling method, considering variations in their understanding or involvement in science lessons. The number of students participating will be adjusted to the needs in order to achieve sufficient data depth
2. Teachers: Science teachers for grade IV at SDN Sindangbarang 03 who implement the direct learning model. Will involve one or two relevant teachers.

2.3 The Main Instruments Used in this Study are:

1. Semi-structured Interview: Interview guidelines will be developed to discuss with students and teachers. The questions given will be open-ended, allowing respondents to provide detailed and varied answers regarding experiences, views, challenges, and ease in implementing the direct learning model.
2. Participant Observation (Non-Participant): The researcher will conduct direct observations in the classroom during science learning activities using the direct learning model. Field notes will be recorded to document interactions between students and teachers, learning activities, student responses, and other aspects related to the focus of the study. The decision on whether observations are conducted as participants or non-participants will be adjusted to the context and ethics of the study.
3. Documents: Documents relevant to science learning, such as the Lesson Implementation Plan (RPP), teaching materials, student worksheets, and student assessment records, will be analyzed to gain deeper insights into the implementation of the direct learning model.
4. Field Notes: Field notes will be an important tool for recording observations, researcher impressions, and reflections during the data collection process.³

²Khoirun Nisah Lubis, N. S. (2024). Konsep Dasar Strategi Pembelajaran Langsung (Direct Instruction). *GURUKU: Jurnal Pendidikan dan Sosial Humaniora* Vol. 2 No. 2, 60-70.

³ Ardiansyah, R. (2023). Teknik Pengumpulan Data Dan Instrumen Penelitian Ilmiah Pendidikan Pada Pendekatan Kualitatif dan Kuantitatif. *IHSAN: Jurnal Pendidikan Islam* Volume 1 Nomor 2, 1-9.

2.4 Data Collection Procedure

1. Permission: The researcher will send a request for permission to conduct research to relevant parties, especially the Principal of SDN Sindangbarang 03.
2. Subject Selection: The subjects of this study (students and teachers) will be determined through purposive sampling based on criteria related to the focus of the study.
3. Observation Implementation: Observations will be conducted during several science learning sessions in grade IV that implement the direct learning model. Descriptive and reflective field notes will be made both during and after the observation.
4. Interview Implementation: Semi-structured interviews will be conducted with students and teachers separately. The interview process will be recorded (with participant permission) and/or recorded manually. The length of the interview will be adjusted to obtain more in-depth information.
5. Document Collection and Analysis: Documents related to science learning will be collected and analyzed to complement the information obtained from observations and interviews.
6. Data Transcription: Interview recordings will be completely transcribed to facilitate the analysis process.

The qualitative data obtained will be analyzed using a descriptive and interpretative approach through thematic analysis methods. The following are the stages in data analysis:

1. Data Reduction: Data from interview transcripts, field notes, and documents will be filtered, categorized, and focused according to the research objectives.
2. Data Coding: After reduction, the data will be labeled with relevant codes to detect patterns, themes, and categories that emerge from the existing information.
3. Data Interpretation: The codes and themes that have been determined will be interpreted to understand the meaning, relationships between concepts, and implications related to the effectiveness of the direct learning model in the context of science learning. This interpretation process will include triangulation of data from various sources such as observations, interviews, and documents to strengthen the validity and credibility of the results obtained.
4. Data Presentation: The results of the analysis will be presented in a descriptive narrative format, direct quotes from interviews, and explanations of the observation results to support the research results.⁴

To ensure the validity of the data, this study will apply several approaches:

1. Triangulation: Utilizing various data sources (students, teachers, observations, documents) and data collection techniques (interviews, observations, document analysis) to confirm the findings.
2. Member Check: The results of data analysis and interpretation will be discussed with the research subjects (students and teachers) to ensure that the researchers' interpretations are in accordance with their experiences and views.
3. Detailed Description (Thick Description): Providing a comprehensive and contextual description of the implementation of the direct learning model and the experiences of the research subjects, allowing readers to understand the context of the research as a whole.
4. Audit Trail: Recording in a structured manner all stages of the research, from data collection, analysis, to interpretation, so that other researchers can trace and assess the research process.

By applying this qualitative research method, it is expected to obtain in-depth and holistic insights into the effectiveness of the direct learning model in teaching science in grade IV of SDN Sindangbarang 03 from the perspective of students and teachers, as well as the context of its implementation.⁵

3. RESULTS AND DISCUSSIONS

3.1 Student Experience in Learning with Direct Instruction Model:

1. Engagement and Attention: Observations show that students tend to be more focused when the material is taught directly by the teacher, especially when props are used or concrete examples are presented. However, when the explanation goes on for a long time without variation, some students seem to start losing concentration.
2. Interaction and Participation: Interviews with students indicate that they feel more comfortable asking questions and interacting when the teacher gives a break after the explanation. Some students feel helped by the examples presented by the teacher, while others feel they have less space to dialogue or explore their own ideas.
3. Understanding of Material: The majority of students expressed that the teacher's direct explanations were very helpful for them in understanding basic science concepts. They appreciated the clear structure in

⁴ Feny Rita Fiantika, M. W. (2022). *METODOLOGI PENELITIAN KUALITATIF*. PT. GLOBAL EKSEKUTIF TEKNOLOGI.

⁵ Muftahatus Sa'adah, G. T. (2022). STRATEGI DALAM MENJAGA KEABSAHAN DATA. *Jurnal Al 'Adad: Jurnal Tadris Matematika Volume 1, Nomor 2*, 54-64

delivering information. However, some students complained about difficulties when the material was taught too quickly or when there was not enough time to ask questions.⁶

3.2 Student Perspectives on Direct Instruction Model:

1. Clarity of Instruction: Generally, students felt that the direct instruction model provided clear instructions about what they needed to learn and do.
2. Support in Learning: The majority of students believed that the direct instruction model helped them understand science material, especially concepts that were new to them.
3. Need for Variety: Some students expressed a desire for variety in the learning approach, such as group discussions or hands-on experiments, after the teacher provided explanations.⁷

3.3 Challenges and Facilities Faced by Students:

1. Challenges: Some students found it difficult to stay focused during long explanations. They also felt they had less opportunity to learn at their own pace.
2. Facilities: The facilities felt by students were the presence of a clear structure, helpful examples, and the opportunity to ask questions directly to the teacher.

3.4 Field Notes

1. During the explanation session about plant parts and their functions, several students were seen starting to discuss with their deskmates after 15 minutes of explanation without interaction.
2. When the teacher gave examples of the parts and their functions using pictures and props, the students looked enthusiastic and asked several questions.
3. Implementation of the Direct Learning Model by the teacher:
4. Learning Format: The results of the observation showed that the majority of teachers followed the format of the direct learning model, which included conveying learning objectives, explaining the material, giving examples, checking understanding, providing directed exercises, and providing independent exercises.
5. Utilization of Media: teachers utilized various media such as whiteboards, pictures, and simple props in learning.
6. Interaction with Students: teachers interacted with students through oral questions and provided feedback on the answers given by students. However, opportunities for open discussion or deeper exploration were still limited.

3.5 Teachers' Perceptions of the Effectiveness of the Direct Instruction Model:

1. Improved Understanding: Teachers felt that the direct instruction approach supported students in understanding science concepts, especially those who needed more structured direction.
2. Classroom Management: Teachers felt that this method was useful in managing the classroom because students had a clear picture of the expectations set for them.
3. Limitations: Teachers acknowledged that this model had limitations in improving critical thinking skills and independence in student learning if not supplemented with other approaches.

3.6 Contextual Factors Affecting Implementation and Effectiveness:

1. Student Size: Smaller classes provide students with more individual attention and support more direct interaction.
2. Time Frame: Time constraints often force teachers to teach material quickly, reducing opportunities for discussion and practice activities.
3. Access to Learning Resources: Limitations on learning aids and resources can impact how effectively material can be delivered.

Field Notes

1. In a classroom setting of 14 students, teachers can be seen paying special attention to each student's understanding.
2. Teaching sessions often feel rushed due to the amount of material that needs to be delivered in a very limited time.

The results of this study provide in-depth insights into the perspectives and experiences of both students and teachers regarding the application of direct learning methods in science learning for grade IV at SDN Sindangbarang 03. Effectiveness of Direct Instruction Model in Understanding Basic Concepts: Research findings indicate that the direct instruction method is able to convey basic science concepts clearly and in an organized manner to students. The explanations provided by the teacher, supplemented with examples and the use of simple

⁶ Shidiq, & Choiri. (2019). *Model Analisis Data Kualitatif Interaktif*. Buku Metodologi Penelitian Pendidikan.

⁷ Rika Rahayu Muslimin, S. U. (2024). Strategi Pembelajaran Langsung (Konvensional). *Madani: Jurnal Ilmiah Multidisiplin Volume 2, Nomor 3*, 468-474.

media, support students in building an initial understanding of the material being taught. This is in line with the theory that supports that the direct instruction method is effective in conveying factual information and basic concepts efficiently⁸

Limitations in Developing Higher-Order Skills: While successful in conveying information, this study also highlights the potential limitations of the direct instruction model in developing students' critical thinking skills, creativity, and independent learning. The lack of opportunities for in-depth discussion, independent exploration of ideas, and active participation in problem solving may hinder the development of these skills. These findings support the notion that more interactive, student-centered instruction may be more effective in achieving more complex learning goals⁹

The Role of Variety in Learning Methods: Students' desire for variety in learning methods indicates the importance of combining direct learning methods with other, more active and collaborative approaches. Synergies between direct explanations and group discussions, simple experiments, or project-based assignments can increase student engagement, deepen understanding, and develop a variety of skills.

Influence of Contextual Factors: Contextual elements such as the number of students in a class, time allocation, and availability of learning resources also play a crucial role in the effectiveness of direct learning methods. Large classes and limited time can reduce opportunities for individual interaction and effective feedback.

Practical Implications: The findings of this study suggest the importance of considering the integration of direct instructional methods with other more interactive and student-oriented learning strategies in science education for grade IV. Teachers also need to receive training and support to develop more diverse learning strategies that can accommodate students' various learning styles. In addition, attention to contextual factors such as class size and time allocation is also very important to maximize learning effectiveness.

4. CONCLUSIONS

Based on the research results, it can be concluded that the direct learning model functions to convey basic science concepts efficiently in class IV of SDN Sindangbarang 03. However, to increase student participation, improve high-level thinking skills, and meet various learning needs, it is necessary to combine it with other learning methods that are more active and more focused on students, as well as attention to contextual factors that influence the implementation of learning.

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