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Identification of Learning Outcomes for Natural and Social Sciences Subjects on Plant Body Parts for Elementary School Students

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Abstracts

Identification of learning outcomes of Natural and Social Sciences subjects on the material "Parts of Plants" aims to understand the extent to which students can recognize the structure and function of plant parts. The purpose of the study was to determine the identification of learning outcomes of Natural and Social Sciences subjects on the material of Parts of Plants in Elementary School Students. This type of research uses a qualitative approach with a descriptive method to identify student learning outcomes in Natural and Social Sciences subjects, especially on the material "Parts of Plants." Data were collected through observation, interviews with teachers, and analysis of student worksheets. The results showed that most students understand the basic concepts of the function and parts of plants such as roots, stems, leaves, flowers, fruits, and seeds. However, there are some students who have difficulty in linking the function of each part of the plant with the overall life process. The results showed that learning about plant parts in grade IV of Elementary School 1 Kaobula was effective with most students understanding the basic concepts, although some had difficulty in the abstract aspects. The use of visual media, direct practice, and discussion succeeded in increasing student understanding and engagement. Various student learning styles are accommodated through a varied approach, which increases motivation and overall learning outcomes.

Keywords: Learning Outcomes, Science, Nature and Social, Plant Body

1. Introduction

Basic education is an important foundation in the education system that aims to shape children's character, knowledge, and basic skills. This education usually includes elementary school (SD) level, which lasts for 6 years. At this stage, students are introduced to various subjects, such as mathematics, language, science, and social sciences, which aim to build logical, creative, and critical thinking skills. In addition, basic education also emphasizes the formation of moral values, such as discipline, responsibility, and tolerance, which are provisions for children in community life (Fadilah et al., 2021). The role of basic education is not only limited to academic teaching, but also to the development of children's emotional and social aspects. Teachers and the school environment are important components in creating a fun and inclusive learning atmosphere (Yanto, 2020). Through extracurricular activities and interactions between students, children are taught to work together, respect differences, and solve problems collectively (Dharmayana & Wiguna, 2021) (Syukri et al., 2023). Quality basic education also contributes to reducing social and economic

disparities, by providing equal opportunities for all children to acquire the knowledge and skills needed to face challenges at the next level of education and in everyday life.

The learning outcomes of Natural and Social Sciences (IPAS) in elementary schools reflect students' understanding of basic concepts related to the natural environment, social phenomena, and the relationships between the two. At this level, students are introduced to topics such as ecosystems, weather, energy, and cultural diversity (Naimah, 2023). The purpose of IPAS learning is to help students develop curiosity, observation skills, and critical thinking skills (Marsanda et al., 2024). Through an activity-based learning approach, such as simple experiments and group projects, students are expected to be able to connect theory with real situations in their environment. Overall, IPAS learning outcomes also include the development of positive attitudes towards environmental conservation and strengthening social values (Septiana & Winangun, 2023). Students are encouraged to understand the importance of maintaining ecosystem balance, appreciating cultural diversity, and contributing to community life (Khasanah, 2023) (Putri et al., 2022) (Yusnan & Ramadhani, 2024). Assessment of IPAS learning outcomes does not only focus on cognitive abilities, but also on affective and psychomotor aspects, such as cooperation, environmental awareness, and practical skills. With good learning outcomes, students can have a strong foundation to continue their education at the next level while becoming individuals who are more environmentally aware and responsive to social problems (Nadhifah et al., 2023).

Identification of learning outcomes in the subject of Natural and Social Sciences (IPAS) on the material "Plant Body Parts" aims to understand the extent to which students can recognize the structure and function of plant parts. This material usually includes the introduction of roots, stems, leaves, flowers, fruits, and seeds and the role of each part in plant life (Astuti et al., 2023) (Lestari et al., 2023) (Valentine, 2023). In the learning process, students are expected to be able to explain the function of roots to absorb water and minerals, stems as supports and transportation routes, leaves as a place for photosynthesis, and flowers, fruits, and seeds as part of plant reproduction. This understanding is an important basis for students to connect the concept of plant biology with everyday life (Siregar, 2023).

Learning outcomes can also be identified through students' ability to conduct direct observations of plants in the surrounding environment (Tanjung & Nurfadilah, 2021) (Liviani, 2018) (Hasman et al., 2023). By using practical approaches, such as observing plants, drawing plant body structures, or conducting simple experiments, students are trained to develop critical and scientific thinking skills (Salmah, 2019) (Puspitasari et al., 2022). Teachers can evaluate these learning outcomes through discussion activities, observation reports, or written tests (Royani et al., 2019). In addition, students' understanding of the adaptation of plant body parts to their environment, such as respiratory roots in mangrove plants or thorny leaves in cacti, is an additional indicator in assessing learning success.

Identification of learning outcomes also includes affective aspects, such as caring attitudes towards plants and the environment. Students are expected to be able to show a high level of curiosity about plants, appreciate the importance of plants in the ecosystem, and maintain their sustainability (Anjani, 2023). For example, students who have understood the function of plant body parts may be more motivated to plant or care for plants at home or school (Fitriani, 2022). With an integrated learning approach,

the learning outcomes of this material not only help students master scientific concepts but also form characters who care about the environment.

The learning outcomes of grade IV students of SD Negeri 1 Kaobula in the Natural and Social Sciences (IPAS) subject on the material "Plant Body Parts" showed several significant obstacles. One of the main problems is students' low understanding of the functions and relationships between plant body parts, such as roots, stems, leaves, flowers, fruits, and seeds. This is due to the limited learning resources available, such as books, teaching aids, and interactive learning media. In addition, the less varied learning methods make it difficult for students to understand abstract concepts that should be practiced directly through observation or simple experiments. The gap in learning outcomes is also seen between students who have better access to learning resources at home and students who only rely on learning at school. Students with internet access and technological devices tend to understand material more easily through learning videos or interactive applications. In contrast, students who do not have such access only rely on lecture methods in class, which are sometimes less effective. In addition, limited time for practical learning at school causes most students to only understand theory without having direct experience in observing and studying plants in their environment.

To overcome this problem, a comprehensive and sustainable solution needs to be implemented. Teachers can increase the variety of learning methods by utilizing technology-based learning media, such as animated videos or interactive applications that are easily accessible. In addition, teachers can hold simple practical activities, such as observing plants in the school environment or experiments on the function of roots and leaves, to increase student involvement. The government or school also needs to provide adequate teaching aids and materials so that learning becomes more effective. With a more active and diverse approach, it is hoped that student learning outcomes can increase evenly, so that no student is left behind in understanding this material.

2. Research methods

This type of research uses a qualitative approach with a descriptive method to identify the learning outcomes of fourth-grade students of SD Negeri 1 Kaobula in the subject of Natural and Social Sciences, especially on the material "Plant Body Parts." Data were collected through observation, interviews with teachers, and analysis of student worksheets. The results showed that most students understand the basic concepts of the function and parts of plants such as roots, stems, leaves, flowers, fruits, and seeds. However, there are some students who have difficulty in linking the function of each part of the plant body with the overall life process. In addition, students who are involved in interactive activities, such as direct observation of plants in the surrounding environment, show better learning outcomes compared to students who only rely on lecture-based learning. Another factor found is the difference in student learning styles, where students with a visual learning style are more responsive to the use of pictures and diagrams, while students with a kinesthetic learning style understand the material better through direct practice. This finding indicates the need for a variety of learning methods to accommodate students' learning needs more effectively.

The data collection technique using observation was carried out to identify the learning outcomes of fourth-grade students on the material "Plant Body Parts" at SD Negeri 1 Kaobula. Observations were carried out directly in the classroom during the

learning process. Researchers recorded student activities, their level of participation, and their ability to understand the material being taught. In addition, observation sheets were also used to record student behavior during group discussions, responses to teacher questions, and their work on assignments or exercises given. This technique aims to obtain authentic data related to the process and learning outcomes of students directly and objectively. Interviews were conducted with grade IV teachers to dig deeper into information about student learning outcomes in the material "Plant Body Parts". This interview was semi-structured, where researchers prepared a question guide but still provided space for teachers to explain freely according to their experiences. The focus of the interview included the teaching methods used, the challenges faced by teachers in teaching this material, and the teacher's assessment of students' ability to understand the concepts taught (Budiwati et al., 2023). The results of this interview provide additional perspectives from the teacher's point of view, which are very important to complement the data from the observation results. Qualitative data analysis according to Huberman is an approach used to analyze data in qualitative research with a focus on systematic data collection, organization, and interpretation. According to Huberman, there are three main stages in the qualitative data analysis process, namely:

Data Reduction

The first stage in qualitative analysis according to Huberman is data reduction, which involves the process of selecting, simplifying, and focusing the collected data. In the context of research on student learning outcomes in the material "Plant Body Parts," this stage involves selecting and organizing observation data, interviews, and related documents according to relevant themes, such as student understanding, teaching methods, and challenges faced by teachers. The purpose of data reduction is to filter the most important and relevant information to answer the research question.

Data Display

After the data has been reduced, the next stage is data presentation, which involves compiling the data in a form that is easy to understand and analyze. Data can be presented in narrative form, tables, or diagrams to illustrate relevant findings. In this study, data presentation can include descriptions of students' level of understanding, activities carried out during learning, and challenges faced during the teaching process. Clear data presentation will help researchers find patterns or main themes that emerge from the results of observations and interviews.

Conclusion Drawing and Verification

The last stage in qualitative data analysis according to Huberman is conclusion drawing and verification. At this stage, researchers begin to draw conclusions based on the findings that have been compiled in the form of data presented. Researchers also verify these findings by comparing and checking their consistency through data obtained from various sources, such as observations and interviews. This process ensures that the conclusions drawn are valid and accountable. In the context of this study, conclusion drawing can include identifying factors that influence students' understanding of the material "Plant Body Parts" and recommendations for improving teaching methods.

3. Results and Discussion

3.1 Results

Student Understanding Level

The level of students' understanding of the learning outcomes of the Natural and Social Sciences Subject on the material of Plant Body Parts in grade IV of SD Negeri 1 Kaobula shows significant variations. Most students are able to identify the main parts of the plant body, such as roots, stems, leaves, and flowers, and understand their functions in the plant's life process. However, some students still have difficulty in connecting the function of each part of the plant with the overall needs of the plant. This shows that although basic understanding has been achieved, there is a need for further strengthening, especially in developing a deeper understanding of the relationship between plant parts and their role in the ecosystem.

Table 1. Teacher Interviews on Students' Level of Understanding

No	Question	Teacher's Answer
1	How do you assess Grade IV students' understanding of plant body parts after being taught this material?	I assessed students' understanding through several methods, such as quizzes, group discussions, and observations as they drew or explained plant parts. Overall, most students were able to understand basic concepts such as roots, stems, leaves, and flowers, although some were still confused about the function of each plant part.
2	Are there any parts of the plant body that students find more difficult to understand? If so, how do you address them?	The most difficult part for students to understand is usually the function of each part of the plant, especially regarding how the roots, stems, and leaves work in the process of photosynthesis. To overcome this, I use interactive picture and conversation media, and do small experiments with plants to show the real function of each part of the plant.
3	Do you use any particular method or media in teaching this material? If so, how does it affect students' understanding?	Yes, I often use visual media such as pictures and videos about plants, as well as props such as real plants. Using these media helps students understand abstract concepts more easily because they can see the shape and function of plant parts directly, which makes the material more interesting and easier to remember.
4	How do you measure students' success in understanding the Plant Body Parts material?	I measure my students' success through written tests, quizzes, and also through observation assessments during the teaching and learning process. In addition, I also ask students to draw and explain plant parts and their functions verbally, which provides a clearer picture of the extent of their understanding.
5	Are there any obstacles or challenges that you encounter in teaching this material? If so, how do you deal with them?	One of the challenges I encountered was the variation in understanding levels between students. Some students were quicker to grasp, while others needed a more patient and personal approach. I dealt with this by paying more attention to students who were struggling, repeating explanations in simpler

	terms, and using a variety of methods to suit their learning styles.

The results of interviews with Grade IV teachers regarding the level of student understanding of the material on Plant Body Parts, that most students already have a basic understanding of plant parts such as roots, stems, leaves, and flowers. However, students still have difficulty in understanding the function of each part of the plant, especially those related to the process of photosynthesis. Therefore, a more in-depth approach is needed to explain the relationship between plant body parts and their roles in the life of the plant itself. To overcome these difficulties, teachers at SD Negeri 1 Kaobula use various learning media such as pictures, videos, and props in the form of real plants, which help students understand the concepts being taught more easily. The use of this media has proven effective in attracting students' attention and making it easier for them to remember and understand the material. In addition, teachers also utilize group discussion methods and small experiments to provide students with direct experience regarding the function of plant body parts. However, teachers face challenges in managing variations in students' levels of understanding. Some students understand the material more quickly, while others require a more personal and intensive approach. Teachers overcome this by paying more attention to students who have difficulty, repeating explanations in a simpler way, and trying to adjust teaching methods to different learning styles. This shows that a good understanding of the material is very dependent on a flexible and creative approach from the teacher.

Student Learning Difficulties

Students' learning difficulties in the learning outcomes of the Natural and Social Sciences Subject on the material of Plant Body Parts in grade IV of SD Negeri 1 Kaobula can be seen in several aspects, especially in terms of understanding more abstract concepts. Many students have difficulty explaining the function of each part of the plant body in detail, such as how roots absorb water and minerals or the role of flowers in the reproduction process. In addition, some students also have difficulty connecting theory with real-life examples, such as recognizing types of plants based on their parts. Factors such as the limitations of the learning media used, the lack of variation in teaching methods, and an incomplete understanding of the natural processes of plants contribute to these challenges. A more interactive and concrete approach is needed to help students overcome these difficulties.

Table 2. Teacher Interviews on Student Learning Difficulties

No	Question	Teacher's Answer
1	What are the difficulties that students usually experience in studying material about plant body parts?	Students often have difficulty understanding the concept of plant parts, such as roots, stems, leaves, flowers, and fruits. They tend to have difficulty distinguishing the function of each part and how these parts interact in the life processes of plants. In addition, sometimes they have difficulty remembering the names of plant parts in scientific language.
2	Are there any particular teaching methods you use to	I usually use visual media such as pictures or plant models to explain each part of the plant body. I also often invite students to do direct activities, such as

	help students understand this material?	observing plants around the school or having conversations about plants in their environment, so that they can understand and remember them more easily.
3	Are there any specific factors that influence students' learning difficulties in understanding the material on plant body parts?	The main factor is the limitation in direct observation of plants, especially for students who live in areas that rarely have plants or gardens. In addition, a basic understanding of plants that may be less in-depth is also a inhibiting factor. There are also differences in learning styles between students who are more visual and those who are more verbal, which affects the speed at which they understand this material.
4	How do you overcome these challenges so that students can better understand the material?	I try to provide simple explanations and divide the material into small, easy-to-digest parts. In addition, I also often hold group discussions where students can ask each other and discuss plant body parts. For students who have difficulty, I provide additional learning with a more practical or project-based approach.
5	What results do you expect after implementing this teaching method in overcoming students' learning difficulties?	I hope that students can more easily identify and understand the function of each part of the plant body. In addition, I also hope that they can relate this learning to everyday life, such as how plants grow and develop in their environment, and be more enthusiastic in studying natural science.

The difficulties experienced by fourth grade students of SD Negeri 1 Kaobula in studying the material on plant body parts are related to understanding the function and role of each part of the plant. Many students have difficulty distinguishing between roots, stems, leaves, flowers, and fruits and understanding the relationship between these parts in supporting plant life. In addition, recognizing the names of plant body parts in scientific language is also an obstacle for some students. To overcome this difficulty, teachers use various interactive and visual-based teaching methods. The use of images and plant models helps students to more easily understand the concepts being taught. Direct observation activities of plants around the school or in the student's environment are also utilized so that they can learn through real experiences. This approach is expected to enrich students' understanding and make the material more relevant to their lives. The expected results after implementing this method are a better understanding of plant body parts and their functions. Students are expected to be able to clearly identify plant parts and understand the importance of each part in supporting the life of the plant itself. In addition, through a more practical and project-based approach, it is hoped that students will be more enthusiastic and motivated to learn Natural and Social Sciences, and can relate the learning to their daily lives.

Student Learning Styles

Students' learning styles in the learning outcomes of the Natural and Social Sciences Subject on the material of Plant Body Parts in grade IV of SD Negeri 1 Kaobula vary, reflecting the diverse preferences of students in absorbing information. Most students show a tendency towards a visual learning style, where they find it easier to understand material through pictures, diagrams, or plant models presented in learning.

Some other students tend to rely on a kinesthetic learning style, which makes it easier to understand concepts by practicing directly, for example by observing plants around the school or conducting small experiments. In addition, there are also students who find it easier to learn through group discussions, which shows a preference for an auditory learning style. By recognizing the diversity of these learning styles, it is important to develop teaching strategies that can accommodate various student preferences, such as the use of visual media, practical activities, and social interactions in the learning process.

Table 3. Teacher Interviews on Student Learning Styles

No	Question	Teacher's Answer
1	How do you assess students' learning styles in Natural Sciences subjects, especially in the material "Plant Body Parts"?	I see that students have different learning styles. Some find it easier to understand material through visuals, such as pictures of plant parts, while others are more active in hands-on practice such as drawing or modeling plant parts with simple materials. Some students also tend to prefer listening to explanations and discussions.
2	What teaching methods do you use to help students understand this material, especially those with different learning styles?	To adapt to students' learning styles, I use various methods. For visual learners, I provide diagrams or pictures of plants. For kinesthetic learners, I teach through practical activities, such as drawing or cutting and arranging plant parts. I also use educational videos for those who prefer to learn through visual media.
3	How do you evaluate students' learning outcomes regarding the material "Plant Body Parts"?	I conduct my evaluation through various methods, including written tests, observations of practical activities, and group discussions. I emphasize more on understanding concepts that can be seen from students' ability to explain the function of plant parts and apply them in everyday life.
4	Did you encounter any challenges in teaching this material to fourth graders? If so, how did you deal with them?	One of the main challenges is to ensure that every student understands the basic concepts of plant parts in a fun and memorable way. Some students still have difficulty connecting theoretical concepts to real-world examples. I overcome this by bringing in live examples, such as bringing plants to class and letting them observe and touch their parts.
5	Are there significant differences in learning outcomes between students who have certain learning styles?	Yes, I see differences in learning outcomes between students with visual and kinesthetic learning styles. Students who are more dominant in visual learning styles tend to understand and remember material faster through pictures or diagrams. While kinesthetic students are better able to absorb information by being directly involved in practical activities. However, both can achieve good understanding if given the opportunity to learn according to their style.

Based on interviews with fourth-grade teachers about students' learning styles and learning outcomes in the material "Plant Body Parts," it can be concluded that

students have diverse learning styles, which affect the way they understand the material. Some students find it easier to understand through visualizations such as pictures and diagrams, while others are more effective through direct experience such as practice or kinesthetic activities. This shows the importance of a varied approach to teaching in order to meet the learning needs of each student. Teachers use a variety of teaching methods to support different learning styles, such as the use of images, educational videos, and practical activities. For visual students, images and diagrams are used to clarify concepts, while students who are more kinesthetic are invited to interact directly with objects or do activities related to the material. Evaluation of learning outcomes is carried out through tests, observations, and discussions, which allow teachers to assess students' understanding more comprehensively, including their ability to apply concepts in everyday life. Although there are differences in the way students learn, teachers note that with the right method adjustments, all students can achieve good learning outcomes. Students with a visual learning style tend to absorb material faster through visual media, while kinesthetic students do better when they are involved in direct practice. In conclusion, the diversity of learning styles in grade IV of SD Negeri 1 Kaobula can be overcome with a flexible and innovative teaching approach, which facilitates deeper understanding for all students.

Student Engagement

Student involvement in the learning outcomes of the Natural and Social Sciences Subject on the material of Plant Body Parts in grade IV of SD Negeri 1 Kaobula was seen to be quite active, although there were variations in the level of participation between students. Most students showed high enthusiasm when given the opportunity to observe and interact with plants directly, either through practical activities in the field or the use of interesting learning media, such as pictures or plant models. Student involvement was also reflected in group discussions, where they shared knowledge and asked questions about plant body parts. However, there were some students who tended to be more passive and needed more encouragement to be actively involved in class activities. To increase the involvement of all students, a more varied approach is needed, such as the use of game-based learning methods or group activities that involve students more directly and enjoyably.

Table 4. Teacher Interviews on Student Engagement

No	Question	Teacher's Answer
1	How would you describe student engagement during learning about Plant Body Parts?	Students are very enthusiastic in following the learning of this material. They are actively involved when doing practical activities, such as observing plant parts through a microscope and making direct observations around the school environment. Interaction between students is also clearly visible when they discuss the function of each part of the plant body. Their involvement also increases through the use of interesting learning media, such as images and videos that make it easier for them to understand the material.
2	Are there any particular methods or approaches that you use to increase student	To increase interest and engagement, I use project-based learning and contextual approaches. For example, students are asked to bring plants from

	interest and engagement in learning the Plant Parts material?	home and observe the parts of the plant. In addition, I also use visual media, such as interactive images and videos, which make the material more lively and easier for students to understand.
3	How do you assess students' learning outcomes after studying the Plant Body Parts material?	My assessment is not only based on written exams, but also through observations of practical activities and class discussions. After the lesson, I give a test to measure their understanding of the function of plant body parts, and I also assess their ability to explain the material orally. The students' learning outcomes are quite good, most students are able to understand the concept and can relate it to everyday life.
4	Do you see any differences between the learning styles of students who prefer visual learning and those who prefer hands-on learning related to this material?	Yes, I do see a difference. Students who are more visual learners tend to understand the material more easily when I show them pictures and diagrams of plant parts. However, students who are more hands-on learners find it more interesting when they can directly observe and touch the plants. Therefore, I try to combine these two approaches so that all students can be engaged in a way that suits their learning style.
5	What were the biggest challenges you faced in teaching this material to fourth graders, and how did you overcome them?	The biggest challenge is to ensure that each student understands a relatively abstract concept, such as the microscopic structure of plants, in a way that is simple and acceptable to fourth graders. To overcome this, I often use examples from the surrounding environment and describe plant parts in a context that is more familiar to them. In addition, I also provide opportunities for students to discuss and ask questions so that they can understand the material more deeply.

The results of interviews with grade IV teachers of SD Negeri 1 Kaobula regarding student involvement in learning the material "Plant Body Parts," can be concluded that student involvement is very good. Students look enthusiastic and active in participating in various learning activities, both through practical work and discussions. Teachers use an approach that combines theory with practice, such as observing plant parts through a microscope or bringing plants directly from home, which makes the material more relevant and interesting to students. The learning methods used by teachers, such as project-based approaches and the use of visual media, have proven effective in increasing student interest and understanding. By utilizing images, videos, and practical activities, students find it easier to understand abstract concepts. Student involvement in class discussions also shows that they are able to connect the theory taught with their daily lives, which is very helpful in deepening the material. The main challenge faced by teachers is ensuring that each student understands the material thoroughly, especially regarding the more complex plant body parts. To overcome this, teachers use examples from the surrounding environment and provide opportunities for discussion. Overall, despite the challenges, a holistic approach and interesting learning media are able to optimize student learning outcomes, so that they can easily master the material about plant body parts.

3.2 Discussion

Student Understanding Level

Most of the fourth grade students of SD Negeri 1 Kaobula showed a good understanding of plant body parts, including roots, stems, leaves, and flowers, and their functions. However, a deeper understanding, especially regarding the relationship between functions between parts in the plant's life process, still needs reinforcement. The use of visual media such as pictures, videos, and teaching aids has proven effective in helping students understand this concept better. (Meylovia & Julianto, 2023) The level of understanding of elementary school students is at the concrete operational stage, where they find it easier to understand concepts conveyed through direct experience or visual representation. This is in line with research findings showing that the use of visual media such as pictures, videos, and teaching aids can help students understand the concept of plant body parts better. This approach allows students to connect abstract information with concrete experiences, thus facilitating the learning process.

Student Learning Difficulties

The main difficulty experienced by students is understanding the function of each part of the plant body and connecting it to the overall plant life process, such as photosynthesis. To overcome this challenge, teachers use various approaches, including direct observation activities, small experiments, and group discussions. This method helps students overcome the difficulty of understanding abstract concepts in a more concrete and relevant way. (Suci, 2021) states that meaningful learning occurs when students can relate new information to existing knowledge. However, if basic concepts are not fully understood, students will have difficulty learning more complex material. Students' difficulties in understanding the function of plant body parts, such as photosynthesis, can be overcome by using a hands-on experience-based approach. This approach allows students to learn abstract concepts through small experiments and direct observations, which makes learning more interesting and relevant.

Student Learning Styles

The variety of students' learning styles affects how they understand the material. Most students prefer to learn through visual media, while others are more comfortable with a kinesthetic approach or through group discussions. To accommodate this diversity, teachers combine various teaching methods, including the use of diagrams, interactive videos, and hands-on activities, which allow all students to get an optimal learning experience. (Nurhasanah et al., 2021) introduced the VARK learning style theory (Visual, Auditory, Read/Write, Kinesthetic), which emphasizes the importance of understanding individual learning preferences. In the context of learning plant body parts, students with visual learning styles benefit from pictures and diagrams, while kinesthetic students understand better through direct practice. The teacher's approach that combines various teaching methods in accordance with the VARK theory supports the achievement of optimal learning outcomes for all students, regardless of their learning style preferences.

Student Engagement

Student engagement in learning is seen to be active and enthusiastic, especially when they are given the opportunity to be directly involved in practical activities. The

project-based learning approach and the use of interactive media have succeeded in increasing student motivation and understanding. Although there are challenges in ensuring equal understanding among students, the holistic approach implemented by the teacher has yielded positive results in increasing student engagement and learning outcomes. According to (Lessy et al., 2023), active student involvement in learning, especially through group discussions and social interactions, can improve deep understanding of concepts. The project-based approach implemented by the teacher in this study, such as bringing plants to class or conducting direct observations, supports Vygotsky's theory of collaborative learning. By utilizing interactive media and practical activities, students are not only more motivated but also able to connect learning to the context of their daily lives, so that learning outcomes become more meaningful.

4. Conclusion

The results of the study showed that the learning of plant body parts material in grade IV of SD Negeri 1 Kaobula had gone well, although there were still some challenges. Most students were able to understand basic concepts, such as recognizing plant body parts and their functions, although some still had difficulty with more abstract aspects, such as the relationship between the functions of plant parts. The use of visual media, hands-on activities, and discussion methods have proven effective in increasing student understanding and engagement. The diversity of student learning styles is also accommodated through a varied approach, which allows each student to learn according to their preferences. With a combination of creative and interactive learning strategies, this learning can increase students' interest and motivation in learning the material, as well as have a positive impact on their learning outcomes.

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