The Impact of Online Learning on the Understanding of Learning Materials for Visually Impaired Students at SLB N 1 Bantul

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ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui dampak pembelajaran daring pada pemahaman materi pembelajaran siswa tunanetra di SLB N 1 Bantul. Penelitian ini menggunakan pendekatan kualitatif yang dilakukan di SLB N 1 Bantul. Metode pengambilan datanya menggunakan observasi, wawancara, dan dokumentasi. Sumber datanya adalah guru dan datanya berupa peristiwa, hasil wawancara, dan dokumen. Analisis datanya meliputi pengumpulan data, reduksi data, penyajian data, dan kesimpulan. Pemeriksaan datanya menggunakan uji kredibilitas, uji transferability, dan uji dependability.

Hasil penelitian, 1) Pembelajaran daring di SLB N 1 Bantul memiliki dampak positif terhadap tingkat pemahaman siswa tuna netra terhadap konsepkonsep sosial dan sains. Dukungan aktif dari guru, orang tua, serta kemampuan adaptasi siswa menjadi kunci dalam pencapaian hasil yang menggembirakan ini; 2) Melalui pembelajaran daring, siswa tuna netra SLB N 1 Bantul mampu secara efektif menerapkan konsep pembelajaran daring dalam situasi nyata. Dukungan dari guru, lingkungan pembelajaran yang inklusif, serta peran aktif orang tua telah berkontribusi dalam membentuk kemampuan praktik dan analisis mereka; 3) Pembelajaran daring memberikan dampak positif yang signifikan pada kemajuan akademik siswa tunanetra. Peningkatan pemahaman, partisipasi, dan keterampilan kritis menjadi bukti nyata akan efektivitas pendekatan ini. Meskipun ada tantangan dalam mencapai peningkatan setinggi pembelajaran tatap muka, dukungan yang tepat dari guru dan lingkungan pembelajaran inklusif dapat membantu siswa tunanetra menghadapi tantangan dengan percaya diri dan mencapai hasil pembelajaran yang lebih baik.

Kata kunci: *Dampak, pembelajaran, daring, pemahaman, materi, siswa tuna netra*

ABSTRACT

The aim of this study is to understand the impact of online learning on the comprehension of learning materials by visually impaired students at SLB N 1 Bantul. This research utilizes a qualitative approach conducted at SLB N 1 Bantul. Data collection methods include observation, interviews, and documentation. The data sources are teachers, and the data itself consists of events, interview results, and documents. The data analysis includes data collection, data reduction, data presentation, and drawing conclusions. The data validation uses credibility tests, transferability tests, and dependability tests.

The research results are as follows: 1) Online learning at SLB N 1 Bantul has a positive impact on the understanding of social and science concepts by visually impaired students. Active support from teachers, parents, and the students' adaptability has been key in achieving these encouraging results; 2) Through online learning, visually impaired students at SLB N 1 Bantul are effectively able to apply learning concepts in real-life situations. Support from teachers, an inclusive learning environment, and the active role of parents have contributed to the

development of their practical and analytical skills; 3) Online learning has a significant positive impact on the academic progress of visually impaired students. The improvement in understanding, participation, and critical thinking skills is clear evidence of the effectiveness of this approach. Although there are challenges in achieving the same level of progress as face-to-face learning, appropriate support from teachers and an inclusive learning environment can help visually impaired students face challenges with confidence and achieve better learning outcomes.

Keywords: *Impact, learning, online, comprehension, material, visually impaired students*

INTRODUCTION

The aim of this study is to understand the impact of online learning on the comprehension of learning materials by visually impaired students at SLB N 1 Bantul as a continued effort to educate the nation's children, even during the pandemic.

With the onset of the Covid-19 pandemic, school learning has tended to be conducted using online media. The internet has become the sole medium of instruction to meet health protocols for physical and social distancing, avoiding close contact and crowds. This applies to the education of visually impaired students as well—students with special needs caused by the non-functioning of both eyes as a channel for receiving information in daily activities, unlike those with normal vision (Hikmah & Pramudya, 2014; Arnita & Andy, 2018).

At SLBN 1 Bantul, online learning is conducted using shared videos. Before starting the online lessons, we as teachers first discuss with the parents to ensure they assist during the online learning by guiding the students as they watch the instructional videos. We assign tasks to the students to perform activities at home, such as washing dishes, sweeping, taking out the trash, wiping windows, and so on. While the children are engaged in these activities at home, we ask the parents to supervise and support them.

In online learning at SLB N 1 Bantul, several issues have been identified: 1) the effectiveness of online learning in improving the understanding of visually impaired students at SLB Negeri 1 Bantul, Yogyakarta has not yet been explored; 2) the challenges faced by visually impaired students in following online learning at SLB Negeri 1 Bantul, Yogyakarta have not yet been documented; 3) effective online learning strategies for visually impaired students at SLB Negeri 1 Bantul, Yogyakarta have not yet been established; 4) the perceptions of visually impaired students regarding online learning at SLB Negeri 1 Bantul, Yogyakarta have not yet been identified; and 5) the impact of online learning on the motivation and engagement of visually impaired students at SLB Negeri 1 Bantul, Yogyakarta has also not yet been identified.

LITERATURE REVIEW

1. Learning and Teaching

   Vesta and Thomson (1970), as cited in Rusman (2017), state that learning is a relatively permanent change in behavior as a result of experience. Meanwhile, Surya (1997) tends to define learning as a process undertaken by an individual to achieve an overall change in behavior, as a result of the individual's own experience in interacting with their environment.

   Teaching is a process carried out by educators to guide and direct students to gain learning experiences. Teaching can also be understood as the process of facilitating students to acquire specific competencies and to optimally develop their potential (Ratumanan and Rosmiati, 2019:22). Essentially, teaching is an interaction process between teachers and students, either through direct interaction such as face-to-face activities or indirect interaction using various learning media (Rusman, 2017:84). Teaching is a structured combination that includes elements such as people, materials, facilities, equipment, and procedures that interact with each other to achieve educational goals (Hamalik, 2003). Furthermore, teaching activities are designed to provide learning experiences that involve both mental and physical processes through interactions among students, between students and teachers, the environment, and other learning resources, in order to achieve basic competencies (BNSP, 2006).

   Thus, teaching is a social environment characterized by interactions among students, between students and teachers, the environment, and learning resources used to provide learning experiences to students, resulting in new behavioral changes in students according to basic competencies.

2. Educational Media

Educational media refers to all forms of physical tools designed systematically to convey information and build interactions (Yaumi, 2019). Educational media are used as tools and materials for teaching activities (Daryanto, 2016). Along with technological advancements, educational media have evolved to reflect technological progress, from manual technologies to electronic (e-learning) and from audio and radio media to multimedia.

However, in essence, the process of teaching and learning is a communication process from the sender (teacher) to the receiver (student). The message, which consists of content (instruction), is conveyed through communication symbols, either verbal (words and writing) or non-verbal; this process is called encoding. The interpretation of these communication symbols by the students is known as decoding. This interpretation can either fail or succeed, depending on the level of communication barriers or noise present. The more verbal the communication, the more abstract the understanding that is received (Daryanto, 2016).

Since the learning process is a communication process and occurs within a system, educational media hold a significant position as one of the components of the learning system. Without media, communication would not occur, and the communication process would not function optimally. Educational media are an integral component of the learning system.

3. Online Learning

Online learning is learning conducted online using various online learning platforms such as Moodle, Google Classroom, Zoom Meeting, Google Meet, Webex, and others (Purwanto et al., 2020). In another definition, online learning is a program that delivers network-based classes to reach a broad target audience using the internet, enabling learning to be carried out extensively with an unlimited number of students (Bilfaqih & Qomarudin, 2015).

There are several theories about online learning, including the following.

a. Constructivist Theory: According to this theory, learning is the process of constructing knowledge by individuals through experience and reflection. In online learning, students build their own knowledge through interaction with learning content and participation in structured learning activities.
b. Activity Theory: This theory emphasizes the importance of students being active in the learning process. Online learning can facilitate students' interaction with a broader learning environment, including through various resources and support for self-directed learning.
c. Cognitive Theory: This theory focuses on the mental processes that occur when individuals process information. In online learning, students must be able to process information from various sources and integrate this information into their knowledge.
d. Social-Constructivist Theory: This theory emphasizes the importance of the social environment in learning, where individuals build their knowledge through interaction with others. In online learning, students can interact with teachers and classmates through various digital platforms and share knowledge with one another.
e. Self-Regulation Theory: This theory emphasizes the importance of students having self-control in learning. In online learning, students must be able to manage their own time, motivate themselves, and take full responsibility for their learning.

4. Student Understanding Theory

The level of students' understanding of the material in a learning process is very important. Theories related to students' understanding of learning material include several theories as follows.

a. Constructivism: This theory emphasizes that students actively build their understanding through interaction with learning material. According to constructivism, students' understanding is influenced by prior knowledge, individual perceptions, and the meaning they construct themselves. A well-known theory within constructivism is Piaget's cognitive development theory (1952), which explains how children build their understanding of the world around them through structured developmental stages. An important concept in this theory is the zone of actual development and the zone of proximal development, which refers to the gap between the abilities an individual can perform independently and the potential development that can be achieved with help or collaboration from others (Vygotsky, L. S., 1978). In addition, regarding students' understanding of the material, it is important to recognize the significance of discovery and the construction of knowledge by students through active interaction with the learning material.

   As stated by Bruner, J. S. (1961), Bruner proposed that students are more active in building their understanding through exploration, manipulation, and interpretation of information. Bruner's theory emphasizes that learning is more effective when students are actively engaged in a "discovery process" involving investigation, organization, and application of new concepts.

   Another theory is meaningful learning theory, which emphasizes the importance of connecting new knowledge with existing knowledge in students' minds. Ausubel argued that effective learning occurs when students can relate new information to concepts already present in their cognitive structure. Organizing and integrating new knowledge into existing frameworks will strengthen students' understanding and retention (Ausubel, D. P., 1968).

   Still related to this topic, an article by Jonassen (1991) discusses the comparison between objectivism and constructivism and questions whether a new philosophical paradigm is needed in education. In this article, Jonassen highlights the differences between objectivist and constructivist approaches to learning.

b. Cognitive Theory: This theory focuses on the processing of information in students' minds. According to cognitive theory, students have limited cognitive capacity, and understanding occurs through stages of information processing such as attention, encoding, storage, and retrieval of information. In cognitive theory, there is a concept known as the Information Processing Model (Atkinson & Shiffrin, 1968). This theory proposes that information processing in the human mind involves three stages: attention (input of information), encoding (coding information into a storable form), and storage.

   Next, there is the Information Processing Theory (Craik & Lockhart, 1972): This theory emphasizes that understanding depends on the depth of information processing. Deeper processing (e.g., considering the meaning and relationships of concepts) leads to better understanding compared to shallow processing (e.g., focusing on physical features).

   Another theory is Schema Theory (Rumelhart & Norman, 1978): This theory suggests that individuals use cognitive schemas (mental structures that organize knowledge) to process new information. Schemas influence understanding by aiding in the selection, interpretation, and organization of information. Finally, there is the Parallel Distributed Processing Theory (McClelland & Rumelhart, 1986): This theory describes information processing in the mind as a parallel distributed network composed of simple processing units that are interconnected. Information is processed simultaneously through many units, and understanding occurs through the activation and spread of activation patterns across the network.

c. Problem-Based Learning Theory: This approach involves assigning tasks or problems that challenge students to apply their knowledge and skills in real-world contexts. In this theory, students' understanding develops through active problem-solving, reflection, and experiential learning.

   In Problem-Based Learning Theory, there is the Constructivist Theory (Vygotsky, 1978): This theory suggests that learning occurs through the construction of knowledge by students through interaction with the environment and others. In the context of problem-based learning, students are actively engaged in problem-solving, building their own understanding, and expanding their knowledge through interaction with challenging tasks or problems.

   Next, there is Critical Thinking Skills Theory (Ennis, 1989): This theory focuses on the development of critical thinking skills, such as the ability to analyze, evaluate, and solve problems. In problem-based learning, students engage in critical thinking processes to identify problems, formulate problem-solving strategies, and evaluate the solutions produced.

   This theory aligns with Knowledge Construction Theory (Jonassen, 1991): This theory emphasizes that learning occurs through the construction of knowledge by students through interaction with authentic tasks or problems. In problem-based learning, students construct new knowledge by building connections between prior knowledge and the context of the problem they are facing. Lastly, there is Social Learning Theory, proposed by Albert Bandura in 1977, which emphasizes the significant role of social interaction in learning and individual development.

d. Social Cognitive Theory: This theory emphasizes the important role of social interaction in students' understanding. Students learn through observation, modeling, and interaction with others. The concept involves learning through shared experiences (social co-construction of knowledge).

   In Social Cognitive Theory, there is the Reinforcement Theory (Skinner, 1953): This theory states that a person's behavior is influenced by the reinforcement or punishment they receive in response to that behavior. In Social Cognitive Theory, the concept of reinforcement is applied in the context of learning and self-development. Positive reinforcement can enhance motivation and an individual's ability to learn new behaviors, while negative reinforcement can reduce the likelihood of the behavior reoccurring.

e. Next is Social Cognitive Theory (Bandura, 1986): This theory, developed by Albert Bandura, emphasizes the important role of cognitive processes in behavior formation. Social Cognitive Theory asserts that individuals learn through observing and modeling the behavior of others. Additionally, cognitive factors such as self-beliefs, expectations, and self-evaluation also influence how individuals regulate and direct their behavior.

   Lastly, there is Social Understanding Theory (Hogg & Vaughan, 2008): This theory emphasizes an individual's understanding of the social world and its impact on behavior. In Social Understanding Theory, individuals are seen as "social scientists" who seek to understand others, social groups, and social situations. Individuals acquire social knowledge through observation, interaction, and cognitive processes involved in understanding beliefs, values, and social norms.

   Student Engagement Theory: This theory highlights the importance of actively engaging students in the learning process to enhance their understanding. Factors such as motivation, interest, direct experience, and emotional involvement affect the level of students' understanding.

   Related to Student Engagement Theory, there is Self-Determination Theory (Deci & Ryan, 1985): This theory emphasizes the importance of

autonomy in motivation and student engagement. According to this theory, when students feel they have autonomy in learning and can satisfy basic needs such as competence and social connection, they will be more motivated and engaged in the learning process. Educators can enhance student engagement by offering choices, providing supportive feedback, and creating an environment that supports the development of autonomy.

Next is Social Connection Theory (Wentzel, 1998): This theory highlights the role of social connections in student engagement. According to this theory, positive and supportive social relationships with teachers and classmates can enhance students' motivation and engagement in learning. Social connections include emotional support, academic support, and opportunities for collaboration and interaction with others. Educators can improve student engagement by building positive relationships, creating an inclusive classroom climate, and facilitating beneficial social interactions.

Lastly, there is Achievement Goal Theory (Ames, 1992): This theory emphasizes the role of learning goals in student engagement. Achievement Goal Theory identifies two relevant types of goals: performance goals and learning goals. Performance goals focus on achieving good results or avoiding failure, while learning goals focus on enhancing understanding, applying knowledge, and developing skills. Students with learning goals tend to be more motivated and engaged. Educators can enhance student engagement by helping students understand the importance of meaningful learning goals and providing feedback that supports the development of these goals.

f. Multiple Intelligences (MI) Theory: This theory proposes that students have diverse and distinct types of intelligence, such as verbal-linguistic, logical-mathematical, kinesthetic, spatial-visual, musical, interpersonal, intrapersonal, and others. In the context of student understanding, MI theory acknowledges individual variations in how students process and comprehend information.

The Multiple Intelligences Theory is indeed well-known, with one of the most prominent being Gardner's Theory of Multiple Intelligences (Gardner, 1983): This theory, proposed by Howard Gardner, states that intelligence is not limited to just verbal and logical-mathematical abilities, but includes a variety of independent types of intelligence. According to Gardner, there are eight types of intelligence: verbal-linguistic, logical-mathematical, spatial-visual, musical, kinesthetic, interpersonal, intrapersonal, and naturalistic. Each individual possesses varying levels of these types of intelligence.

Next is Emotional Intelligence Theory (Salovey & Mayer, 1990): This theory emphasizes the importance of emotional intelligence in individual success. According to this theory, emotional intelligence includes the ability to recognize, understand, manage, and express emotions effectively, as well as the ability to interact effectively with others. Emotional intelligence involves aspects such as self-awareness, emotional regulation, self-motivation, empathy, and social skills.

Lastly, there is the Theory of Intrapersonal and Interpersonal Intelligence (Gardner, 1983): Within the framework of Multiple Intelligences Theory, Gardner identifies intrapersonal and interpersonal intelligence as two important types of intelligence. Intrapersonal intelligence relates to self-understanding, introspection, and personal emotional regulation. Meanwhile, interpersonal intelligence pertains to the ability to understand and interact effectively with others, having empathy, and working effectively in groups.

5. Visually Impaired Students

Law No. 20 of 2003 on the National Education System and Law No. 8 of 2016 on Persons with Disabilities state that education is a right for all citizens, not only for the non-disabled but also for persons with disabilities. However, the percentage of persons with disabilities who attend school is still very low.

The National Socio-Economic Survey (SUSENAS) conducted in 2018 found that there were 55,708,205 persons with disabilities in the school-age group (7-18 years). Meanwhile, approximately 1.6 million children with disabilities are receiving inclusive education. This indicates that more than 90% of persons with disabilities have not yet received formal education (Saleh, 2019).

One of the groups of persons with disabilities is the visually impaired. According to Praptaningrum (2020), a visually impaired person is someone whose sense of sight does not function normally, who cannot see at all (total blindness), or who can only perceive light (severely impaired vision). Indonesia ranks fourth among the five countries with the highest number of people experiencing visual impairments, following China, India, Pakistan, and the United States. The Center for Data and Information of the Indonesian Ministry of Health (2018) reports that 0.49% of the global population of 7.33 billion is affected by blindness, with 0.55% of those with visual impairments being women (www.pusdatin.kemenkes.go.id, 2018).

METHOD

1. Research Location
   The research setting is the location where the research is conducted. In this case, it is conducted at SLBN 1 Bantul Yogyakarta. SLBN 1 Bantul Yogyakarta has a department for visually impaired students, 9 teachers, and a total of 17 students, consisting of 11 male students and 6 female students. This research aims to explore the impact of online learning on the understanding of learning materials by visually impaired students at SLBN 1 Bantul. To achieve this goal, the research will use a qualitative approach.
2. Data and Data Sources
   The data sources used in this research come from people, events, interview results, and documents. According to Arikunto (2013), data sources are the subjects from which data can be obtained. Therefore, in terms of data sources, there are two types: primary data sources and secondary data sources.
3. Data Collection Procedures
   The data collection procedures for this research are carried out using three methods: 1) Observation, 2) Interviews, and 3) Documentation.
   a. Observation, involves closely observing the research site, either openly or covertly. This observation is conducted to gain a real understanding of various aspects related to the research topic, specifically focusing on the conditions of online learning at the research location.
   b. Interviews, are conducted to obtain clearer data and serve as a method for confirming the results of the observations. Interviews are carried out flexibly to avoid disrupting the activities of the interviewees. During the interview process, the researcher uses an interview guide to make the interviews more systematic and structured.
   c. Documentation, is used to reinforce or challenge the data obtained from observations and interviews. This includes both printed and digital documentation (files), as well as online data available to the researcher.
4. Data Analysis
   Data Analysis in qualitative research involves working with data to organize, sort, and manage it into manageable units. This process includes identifying references, determining what is significant and what has been learned, and deciding what can be communicated to others (Moleong, 2012).

Miles and Huberman (1992) outlined three stages that must be carried out in analyzing qualitative research data, which are: (1) data reduction; (2) data display; and (3) conclusion drawing and verification.

5. Data Validity Checking

   The data obtained during the research process are then tested for validity. The methods used to ensure the validity of the data include the following:

   a. Credibility testing is done by extending the research period and increasing precision in conducting the research. This is used to ensure that the data obtained is truly valid and suitable for further analysis.
   b. Transferability Testing: This is done by comparing the data obtained with relevant references. This ensures that the data collected in the study aligns with theoretical frameworks and is acceptable to the broader community.
   c. Dependability Testing: This involves presenting the research data to a second, competent, and relevant party for evaluation or assessment. This helps ensure that the data obtained in the study is not only valid but also consistent if examined by other researchers.

RESULTS AND DISCUSSION

1. Discussion of the Visually Impaired Students' Understanding of the Material

   This study involved the visually impaired teachers from SLB N 1 Bantul as the primary participants. The data collected reflects the active and constructive participation of all involved parties, aiming to provide a holistic view of the visually impaired students' experiences and understanding of online learning, according to the teachers. With dedication, the researcher strives to present accurate and meaningful findings, which are expected to contribute to the development of inclusive teaching methods and have a positive impact on visually impaired students at SLB N 1 Bantul.

   The first data point to be presented is about the understanding of social studies by visually impaired students in general. Regarding this, a teacher stated the following during an interview with the researcher: “At first, the students found it difficult. To address this, the teachers visited the students' homes to help them understand what was being taught. Once they got used to it, the students found it easier to comprehend the social studies material in general.” (W: Teacher, 2023).

   The experience of visiting students' homes also helps teachers gain a deeper understanding of the individual challenges and needs of each student, allowing the teaching approach to be tailored to the characteristics and learning styles of each student. Additionally, building a close relationship between teachers and students through home visits can foster students' self-confidence and motivation to learn. With this initial effort, teachers have made a significant contribution to creating an inclusive learning environment and empowering visually impaired students to succeed in online learning. This aligns with the theory of Vesta and Thomson (1970) in Rusman (2017), which states that learning is a relatively permanent change in behavior as a result of experience.

   Furthermore, the research findings indicate that their understanding of the learning material significantly improved after participating in online learning. Initially, the students found it challenging to engage in online learning, but with the active support of teachers who visited their homes and assistance from their parents, the students managed to overcome these challenges. They demonstrated an increased understanding of social concepts through listening and strong reasoning abilities.

   This indicates that online learning can provide opportunities for visually impaired students to develop their understanding more effectively and to optimize their potential. This is in line with the theory that states learning is a process of

facilitating students to acquire specific competencies and to develop their potential optimally (Ratumanan and Rosmiati, 2019:22).

Furthermore, the students have also proven capable of identifying connections and relationships between various elements in the social studies material. By using reasoning and the ability to position themselves in the social situations being studied, visually impaired students successfully linked these concepts to real-life contexts. Additionally, they were able to understand the social, political, and economic contexts of the social studies material by utilizing their listening skills and receiving additional support from related news. This demonstrates that visually impaired students can overcome challenges and develop their analytical skills to better understand the lesson content.

Research findings indicate that engaging in online learning has resulted in a significant increase in the understanding of learning materials among visually impaired students. Although they initially faced difficulties, the support from teachers who visited students' homes and the active participation of parents helped them overcome these obstacles. Their ability to handle technical challenges and participate in the online learning environment with adequate support has provided opportunities for the development of understanding social and scientific concepts. This aligns with the constructivist theory, particularly Piaget's well-known theory of cognitive development (1952), which explains how children build their understanding of the world around them through structured developmental stages.

2. Discussion on the application of concepts in real-life situations.

As previously mentioned, the data collected suggests that visually impaired students demonstrate a strong ability to apply the concepts or knowledge learned in online learning to real-life situations. They successfully connected this knowledge with practical application, whether through simulations or real case studies. Support from teachers and an inclusive learning environment have been key in facilitating visually impaired students to develop this ability, enabling them to face various learning challenges with confidence and creativity. Although there is potential for further improvement in their analytical skills and application of concepts, the findings indicate positive progress in the development of their understanding and application of learning concepts.

Overall, the findings show positive progress in the ability of visually impaired students to apply the concepts learned in online learning to real-life situations. Support from teachers, an inclusive learning environment, and the active role of parents play a crucial role in facilitating students to face learning challenges with confidence, connect theory with practice, and enhance the quality of their understanding and critical thinking skills. Hands-on experiences and simulations in learning have become effective means to help visually impaired students link knowledge to real life, enriching their overall teaching and learning experience.

Based on the research findings, several discussions can be presented, the first of which concerns the application of concepts in real-life situations. Within the framework of online learning, visually impaired students have demonstrated exceptional ability in applying the concepts and knowledge they have learned to real-life situations. They have been able to connect these concepts with practical application, whether through simulations or actual case studies. The research findings highlight that active support from teachers and an inclusive learning environment is crucial in facilitating students to develop this ability. Through this vital role, visually impaired students are able to face various learning challenges with remarkable confidence and creativity.

Second, contributions in discussions. The research findings also highlight the active participation of visually impaired students in discussions and sharing opinions related to online learning materials. They are not only able to ask deep

and relevant questions but also enrich discussions with contributions of ideas and thoughts based on their personal experiences. Thus, visually impaired students bring unique perspectives that broaden the group's understanding, demonstrating an exceptional level of comprehension of the material.

Third, regarding the ability to identify problems and apply concepts. The research findings also reveal the ability of visually impaired students to identify problems in real-life situations and link them to the concepts they have learned. In this regard, their critical thinking skills and ability to apply these concepts in tasks or projects involving problem-solving are key points. Visually impaired students are able to connect theory with practice through the analysis of relevant real-life cases, demonstrating that they have a strong foundation of understanding.

Fourth, regarding the role of teachers, the learning environment, and parents. In the context of developing the abilities of visually impaired students, the role of teachers as facilitators is crucial. Teachers' support in guiding students to connect concepts with real-life situations and providing an inclusive learning environment has facilitated students in gaining confidence and practical skills. Additionally, the role of parents in supporting the learning process, both by providing technical assistance and moral support, also has a significant impact on the development of students' abilities.

Fifth, regarding implications. Overall, the findings indicate that visually impaired students are effectively able to apply online learning concepts to real-life situations. Support from teachers, an inclusive learning environment, and the active role of parents have contributed to shaping their practical and analytical abilities. Hands-on experiences and simulations in learning have proven to be effective means of helping visually impaired students connect knowledge with daily life. The implications of these findings could stimulate the development of more inclusive and interactive learning approaches, by optimizing the roles of teachers and environmental support, to better facilitate students' ability to apply learning concepts in real-life situations.

3. Discussion on Academic Progress

There is a theory that states educational media encompasses all forms of physical equipment designed systematically to deliver information and build interaction (Yaumi, 2019). Another theory suggests that educational media are tools and materials used for learning activities (Daryanto, 2016). These theories indicate that educational media are tools that assist the learning process. In online learning, educational media must be adapted to be usable by students, particularly for visually impaired students. This research demonstrates that educational media in online learning have had a positive impact on students' understanding and have supported their academic progress.

Based on the data obtained, it can be concluded that online learning has a positive impact on the academic progress of visually impaired students. Overall, students have shown improvement in their understanding of concepts and learning materials, as well as progress in their exam scores or grades. Although this improvement is not yet as optimal as face-to-face learning, this positive progress reflects the effectiveness of the online learning approach in enhancing understanding and application of the material. Support from teachers and an inclusive learning environment are key in facilitating the academic advancement of visually impaired students in different learning situations.

Additionally, the findings also reveal variation in student evaluation results before and after engaging in online learning. Some students showed an increase in their scores, while others experienced a decrease. This highlights the importance of providing special attention and individual support for visually impaired students in addressing learning challenges. Collaboration between teachers, parents, and

visually impaired students is key to achieving better and more consistent learning outcomes.

Additionally, online learning also impacts the level of student participation in class or academic activities. Although there has been an increase in participation, the results have not yet reached the maximum level. Ongoing support and motivation from teachers and an inclusive learning environment are expected to enhance overall student participation, achieving a more optimal and sustainable level of involvement in learning and academic activities.

Overall, the findings indicate that online learning has a positive impact on the academic progress of visually impaired students. Improvements in understanding, participation, and critical skills are indicators of the effectiveness of the online learning approach. Although there are some challenges and the improvements are not yet as optimal as face-to-face learning, with proper support from teachers and an inclusive learning environment, visually impaired students can continue to face learning challenges with confidence and achieve better learning outcomes. Enhancements and optimization of online learning strategies are expected to improve the effectiveness of learning and academic progress for visually impaired students.

Referring to all the presented information, there are several points to be made, the first of which is about the improvement in academic progress. This research provides strong evidence that online learning has a positive impact on the academic progress of visually impaired students. Although the improvement may not yet be as high as face-to-face learning, overall, students have shown progress in understanding concepts and learning materials. This improvement is also reflected in their exam scores or grades. These findings underscore the effectiveness of the online learning approach in stimulating academic progress for visually impaired students in different learning situations.

Second, regarding the role of teachers and an inclusive environment. In the context of academic progress for visually impaired students, the role of teachers and an inclusive learning environment is crucial. Teacher support in providing guidance, accessible materials, and open interaction with students significantly influences the enhancement of understanding and achievement. An inclusive learning environment, which encourages participation and peer support, also plays an important role in creating conditions that foster better academic progress.

Third, regarding variation in evaluation results. The findings reveal variation in student evaluation results before and after engaging in online learning. Some students showed improved scores, while others experienced a decrease. This variation highlights the importance of an individualized approach and recognizing the diverse learning styles of visually impaired students. Efforts to provide targeted and specific support are crucial in addressing challenges and maximizing student potential.

Fourth, regarding participation and its impact on academic activities. In addition to its impact on academic progress, online learning also has implications for student participation in class and academic activities. Although there has been an increase in participation, the results have not yet reached an optimal level. Continuous encouragement and support from teachers, along with an inclusive learning environment, are crucial in fostering more active and consistent student participation in various learning activities.

Fifth, regarding challenges and potential improvements. Overall, this research indicates that online learning has a significant positive impact on the academic progress of visually impaired students. Improvements in understanding, participation, and critical skills are clear evidence of the effectiveness of this approach. Although there are challenges in achieving improvements as high as

face-to-face learning, appropriate support from teachers and an inclusive learning environment can help visually impaired students face challenges with confidence and achieve better learning outcomes. In the ongoing effort to improve online learning strategies, further enhancements and optimizations are expected to be implemented to increase the effectiveness of learning and achieve more optimal academic progress for visually impaired students.

CONCLUTION

1. Online learning at SLB N 1 Bantul has a positive impact on the level of understanding of social and science concepts among visually impaired students. Active support from teachers, parents, and the students' ability to adapt have been key factors in achieving these encouraging results.
2. Through online learning, visually impaired students at SLB N 1 Bantul have effectively applied online learning concepts to real-life situations. Support from teachers, an inclusive learning environment, and the active role of parents have contributed to shaping their practical and analytical abilities.
3. Online learning has a significant positive impact on the academic progress of visually impaired students. Improvements in understanding, participation, and critical skills are clear evidence of the effectiveness of this approach. Although there are challenges in achieving improvements as high as those seen in face-to-face learning, appropriate support from teachers and an inclusive learning environment can help visually impaired students face challenges with confidence and achieve better learning outcomes.

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