

Analysis of Learning Module Effectiveness Self-Efficacy Review Oo Students with Visual Impairment

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Abstract: *As a learning medium, modules undoubtedly possess an essential role in conveying information to students, with their characteristics of displaying more easily accepted information by students. This research, therefore, aims to analyze learning modules reviewed from self-efficacy for students with visual impairments. The research method employed is quantitative, with a quasi-experimental model, where two groups comprised experimental and control groups. The data collection technique used was a self-efficacy questionnaire, and the data were then analyzed utilizing descriptive statistics. This research examined 30 respondents who were students with visual impairments in class VII-IX SMP LB at SLB A YAAT Klaten and SLB A YKAB Surakarta. The research results revealed that the learning module used for students with visual impairments effectively increased student self-efficacy*

Keywords: *Learning modules, self-efficacy, students with visual impairment*

Abstrak: Sebagai salah satu media pembelajaran, modul tentu saja memiliki peranan penting untuk menyampaikan informasi kepada para siswa, dengan karakteristiknya yang mampu menampilkan informasi yang lebih mudah diterima kepada peserta didik. Penelitian ini, untuk itu, bertujuan menganalisis modul pembelajaran, yang ditinjau dari efikasi diri pada siswa dengan hambatan penglihatan. Metode penelitian yang digunakan adalah kuantitatif, dengan model quasi eksperimen, di mana terdapat dua kelompok: kelompok eksperimen dan kontrol Teknik pengumpulan data yang digunakan adalah angket efikasi diri, dan data tersebut kemudian dianalisis secara statistic deskriptif. Penelitian ini meneliti 30 responden yang merupakan siswa dengan hambatan penglihatan kelas VII-IX SMP LB di SLB A YAAT Klaten dan SLB A YKAB Surakarta. Hasil penelitian menunjukkan bahwa modul pembelajaran yang digunakan untuk siswa dengan hambatan penglihatan efektif untuk meningkatkan efikasi diri siswa.

Kata Kunci: Modul pembelajaran, efikasi diri, siswa dengan hambatan penglihatan

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INTRODUCTION

Education is one of the most critical sectors in national development. Through the education sector, quality people can be formed. As stated in Law Number 20 of 2003, CHAPTER II Article 3, national education functions to develop abilities and shape character like a dignified national civilization to educate the life of the nation, aiming to develop the potential of students to become human beings who have faith and are devoted to God Almighty, have noble minds, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens.

Every citizen has the same right to obtain access to education without exception to persons with disabilities, as stated in Law Number 8 of 2016 in Article 10 A, which explains that the right to education for persons with disabilities includes the right "to receive quality education in an educational unit in all types, pathways, and levels of education inclusively and specially."

The term people with disabilities, or what are usually called children with special needs in the field of education, has several definitions and variations. Leli Erawati and Margareta Sinaga (2016) define children with special needs (hereinafter abbreviated as ABK) as children with significant obstacles, including physical, mental-intellectual, social, and emotional, and children with special needs tend to have development that is not nearly the same as children their age so that they require special services. Desiningrum (2017) believes that children with special needs are those who require special treatment because of the developmental disorders experienced by the child, so they can be defined as children with limitations in one or several abilities, whether physical, such as visual impairment or hearing impairment, developmental in nature such as autism, intellectual disorders such as syndrome, and impaired learning abilities. Meanwhile, the types of ABK are visual, hearing, intellectual, physical, developmental impairments, and people with mental impairments (Leli Erawati & Margareta Sinaga, 2016).

Specifically, one of the children with special needs is an individual with visual impairments. Viewed from the definition, it is an individual who is said to be a child with low vision so that his vision cannot be used in learning like other individuals, even though he has been assisted with assistive devices, or a child who does not see at all (blind), so he needs special modifications in learning (Hidayat & Suwandi, 2013). Individuals with visual impairments have limitations in receiving stimulation or information from outside themselves through their sense of sight, so recognition or understanding of the world around them is usually replaced by the senses of hearing and touch as the main channel for receiving information. Meanwhile, the sense of hearing can only receive information from outside through sound. Due to the lack of visual stimulus, the development of visual language in children with visual impairments will lag behind that of sighted children if it is not accompanied by assistance in orientation and mobility in the child's environment (Somantri, 2006). In children with visual impairments, vocabulary abilities are divided into two groups, i.e., meaningful words based on their experience and verbalizations from others, so they do not obtain complete information (Sagala, 2019).

The impact of visual impairment also results in students with visual impairment having to optimize further the function of their other senses, such as the sense of hearing and the sense of touch. Hence, in the learning process, they will tend to use tactual and audio media and learning resources (Nindiyana, 2021).

From the expert opinions above, it can be concluded that individuals with visual impairments have several obstacles, such as barriers to language, orientation and mobility, non-verbal expression, social interaction, and others. These obstacles make the level of self-efficacy of individuals with visual impairments tend to be low. It happens because children with visual impairments are less able to meet

the normative requirements demanded by their environment, for example, the ability to adapt to social interactions, confidence in living daily life, mutual respect, ability to express, and so on. Low efficacy also occurs in individuals who are initially able to see with good vision, and then the individual's vision becomes reduced or completely lost. They will experience physical and psychological changes that can affect their role and social status in the surrounding environment.

Apart from these impacts, children with visual impairments also have obstacles in learning and obtaining information. To obtain information and increase insight/learning, children use the senses that are still functioning. Children's obstacles tend to make them feel inferior and less confident than children in general. It can be overcome by increasing the child's self-efficacy or self-confidence (Widjayanti & Hitipeuw, 2005).

Bandura (1977) revealed that the self-confidence that underlies the formation of behavior is called self-efficacy. Self-efficacy is an individual's assessment of abilities in the activity domain, not the general trait domain (Yapono and Suharnan, 2013). Self-efficacy is divided into three types: academic, regulatory, and social self-efficacies. Academic self-efficacy is completing assignments, organizing learning activities, and achieving expectations (Utari & Senen, 2018). Self-regulatory efficacy is efficacy in terms of the ability to withstand peer pressure and avoid high-risk activities. Meanwhile, social self-efficacy effectively forms and maintains relationships, asserts, and participates in free time.

Self-efficacy is also a unidimensional cognitive evaluation process (Yapono, 2013). It indicates that an individual's self-efficacy level is limited to a specific thing. Students with low self-efficacy in one area can have high self-efficacy in others. For example, a student has higher self-efficacy in academic areas, so he will have lower self-efficacy in non-academic areas and vice versa (Wulandari et al., 2020).

According to Somantri (2006), children with visual impairments, or what are often referred to as blind, are individuals whose two senses of sight do not function as channels for receiving information in daily activities like sighted people. Viewed from an educational perspective, Widjayanti and Hitipeuw (2005) stated that the definition of a blind person is a person who requires special tools, methods, or techniques for their learning activities so that the person can learn without sight or with limited vision. From an educational perspective, Pratiwi (2011) also stated that blindness is a visual impairment that disrupts the learning process and the process of achieving maximum achievement. Meanwhile, from a medical perspective, the World Health Organization (WHO) defines blind people as individuals with visual acuity of less than 3/60 (20/400) or a visual field limitation of less than 10 degrees from the center of fixation. The meaning of 3/60 is that an individual can only read letters at a distance of six meters, whereas sighted people can read letters at 60 meters (Drigas et al., 2020).

The classification of people who are blind in terms of visual acuity is divided into two, namely totally blind for individuals who experience very severe visual impairments or cannot see at all and low vision for individuals who still have residual vision, although limited (Utomo, 2019).

Moreover, blind children have specific characteristics due to loss of visual information. The characteristics of blind children, as explained by Atmaja (2018), are a feeling of suspicion towards other people, irritability, verbalism, feelings of inferiority, customs, and likes to fantasize. Apart from that, there are characteristics of blind people in the form of critical thinking and courage. Limited vision can motivate blind children to think critically about a problem. Children will be focused and critical based on previously obtained information. Crain (2021) asserts that self-efficacy is a person's evaluation of their ability or competence to carry out a task, achieve goals, and overcome obstacles. This definition further emphasizes the understanding of self-efficacy, a competency evaluation form. It suggests that there is

an assessment process of the level of competence to decide on behavior or attitudes in completing tasks or achieving specific expected goals.

Yapono (2013) proposed a slightly different definition but in the same context related to self-efficacy, i.e., the feeling that one is competent and effective. Meanwhile, according to Alwisol (2009), self-efficacy is one's perception of how well one can function in certain situations, and self-efficacy is related to the belief that one can carry out the expected actions.

Bandura (1977) also mentioned three aspects of self-efficacy. First is magnitude (level), where a task can be divided into difficulty levels: easiest, medium, and most difficult. This magnitude aspect is related to a person's belief in the difficulty level of a particular task. Second, generality is an experience that can limit expectations of mastering a particular task or job. The wider the area an individual believes he can master, the higher his confidence in carrying out a specific task. This generality aspect is associated with the breadth of the task domain believed to be capable of being completed. Third is strength, i.e., weak expectations will easily extinguish individuals with bad experiences. Meanwhile, individuals with strong hopes will put all their energy into facing various tasks despite bad experiences.

For that reason, this research discusses the analysis of the use of learning modules in terms of the self-efficacy of students with visual impairments, especially for students in grades VII-IX of SMP LB at SLB A YAAT Klaten and SLB A YKAB Surakarta.

RESEARCH METHODS

The method employed in this research is quantitative. Shannon-Baker (2016) explains quantitative research as a research approach that collects and analyzes data in numbers and statistics to understand patterns, relationships, and phenomena that can be measured. According to Sugiyono (2018), this research method collects, analyzes, and interprets data in numbers to understand phenomena or relationships within them. The data collection technique used was an influence test questionnaire, a self-efficacy test. In addition, researchers used literature studies through articles and other relevant sources to analyze learning modules regarding the self-efficacy of students with visual impairments. This research involved 30 students with visual impairments in classes VII-IX of SMP LB at SLB A YAAT Klaten and SLB A YKAB Surakarta, as respondents to answer interview questions and self-efficacy questionnaires related to the learning module.

RESULTS AND DISCUSSION

In the preliminary study, the researchers gave questionnaires to students to determine student self-efficacy. This self-efficacy questionnaire consisted of magnitude, generality, and strength. Thus, the following results were obtained:

Table 1. Frequency Distribution of Initial Measurement of Self-Efficacy

Category	Interval	Frequency	Percentage (%)
Very low	$X \leq 49.5$	2	10
Low	$49.5 < X \leq 64.9$	13	43.33
Moderate	$64.9 < X \leq 80.2$	12	30
High	$80.2 < X \leq 95.5$	3	16.67

Very high	$X > 95.5$	0	0
Total		30	100

The table presents the distribution of self-efficacy, which can be seen that two students (10%) had very low self-efficacy, 13 students (43.33%) had low self-efficacy, 12 students (30%) had moderate self-efficacy, three students (16.67%) had high self-efficacy, and 0 students (0%) had very high self-efficacy. Based on this information, most students' self-efficacy was categorized as low.

It aligns with the results of interviews conducted by researchers with teachers regarding student self-efficacy, which tended to be low. This condition resulted in other difficulties in several subjects, such as mathematics, English, arts, and culture. Consequently, there is a need for a medium to increase the self-efficacy of students with visual impairments, i.e., a learning module.

Then, after implementing the learning module, the researchers again measured students' self-efficacy. Thus, the following results were obtained:

Table 2. Frequency Distribution of Final Measurement Self-Efficacy

Category	Interval	Frequency	Percentage (%)
Very low	$X \leq 70.9$	1	3.33
Low	$70.9 < X \leq 77.7$	11	36.67
Moderate	$77.7 < X \leq 84.5$	3	10
High	$84.5 < X \leq 91.3$	15	50
Very high	$X > 91.3$	0	0
Total		30	100

The table reveals the distribution of self-efficacy. It can be seen that one student (3.33%) had very low self-efficacy, 11 students (36.67%) had low self-efficacy, three students (10%) had moderate self-efficacy, 15 students (50%) had high self-efficacy, and 0 students (0%) had very high self-efficacy. From that, it is known that most students' self-efficacy was categorized as high after implementing the learning module in classroom learning activities.

Table 3. Descriptive Statistics Comparison of Initial and Final Self-Efficacy

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Initial self-efficacy	30	43.00	90.00	72.5333	15.33473
Final self-efficacy	30	70.00	89.00	81.1000	6.82465
Increased self-efficacy	30	-15.00	35.00	8.5667	15.94967

Valid N (listwise)	30				
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Based on the data analyzed, most students with visual impairments still had low levels of self-efficacy. Thus, they need a medium that could be used to increase self-efficacy.

The level of self-efficacy possessed by students with visual impairments has so far been obtained from habit alone. For example, the habit of listening to peers and the environment at home, which tends to be normal, does not allow them to try. They need other media that can be used to increase the efficacy of students with visual impairments outside the classroom or at home. In this case, print media is a medium that can be used to increase the self-efficacy of students with visual impairments. According to Nurhidayati et al. (2018), printed teaching materials are superior to other teaching materials.

The learning modules currently used by students contain complete material, such as material structured sequentially from general to specific knowledge, easy-to-follow sub-chapters, practice questions, answer keys, and evaluation sheets (Kirana & Suhartono, 2020). The learning module not only presents written material but is also accompanied by a website/recording of the material's content and practices from the material as examples. This learning module contains print and digital learning modules. Therefore, students can access the material more comprehensively and independently, fostering a daring attitude to try and be creative. Apart from that, this learning module strengthens aspects of self-efficacy, including magnitude, generality, and strength. It is reflected in the module's content, which stimulates students with visual impairments to complete tasks through gradual exercises from easy to difficult. When students can solve a problem, it will increase their confidence in their abilities.

Moreover, this combined learning module (print and digital) has several benefits, as previously stated by several researchers or experts. Learning modules that integrate print and digital modules have advantages that complement both shortcomings. Using printed modules can improve abilities that support 21st-century skills, such as problem-solving, critical thinking, and creative thinking skills. The use of print media also has advantages, i.e., students in any area can use it because it is in the form of a book, and students can efficiently work directly on the sheets provided; they can make notes on the module pages (Puspitasari, 2019). Nonetheless, printed modules have weaknesses, including being unable to display videos, animation, and music, not being interactive, making students quickly bored, and requiring high printing costs if there are many images.

The weaknesses of printed modules in this learning module are overcome by combining digital modules sourced from the web or sound recordings. It is also consistent with the research results of Abdullah et al., where printed teaching materials can be developed into interactive programs, including creating computer-based interactive modules or websites (Effendi et al., 2021). It is said to be interactive because users will experience interaction and be active, such as actively paying attention to images, sounds, animations, and even videos and films. Rio Adriyanto et al. (2020) added that e-module learning modules can make it easier for students to access learning materials and are not limited by time. Digital modules also bring a new revolution and provide opportunities for higher understanding and learning outcomes (Sujanem et al., 2009).

CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis results and discussion carried out in this research, it can be concluded that the learning module used for students with visual impairments effectively increased their self-efficacy, as it stimulates students to complete tasks through gradual exercises from easy to difficult. Aside from that, this learning module has various benefits since it combines the principles of print and digital learning modules.

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