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THE IMPLEMENTATION OF SCHOOL LITERACY PROGRAM FOR BLIND STUDENTS AT SPECIAL SCHOOLS IN BALI PROVINCE

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ABSTRACT:

This study mapped the implementation of literacy enhancement program at special schools in Bali Province. This study was planned to complete within three years. In the first year, the mapping was focused on blind students. This study was conducted using a qualitative paradigm. Data were collected from special schools in three districts and cities in Bali Province with a total population of 65 students, consisting of 1st grade (SDLB) – 12th grade (SMALB) students. Data were collected through document review, in-depth interviews, questionnaires, and observations. The data analysis showed that Special Schools in Bali Province applied three kinds of literacy enhancement activities to address the problems that students experienced; reading by the teacher, using audiobooks, and the provision of Braille corners. Those activities were expected to facilitate literacy enhancement program as outlined in the guidelines. Teachers' reading aloud promoted early and basic literacy skill and the use of audiobooks to enhance media and technology literacy. The Braille reading corner was intended to improve the library literacy. The only type of literacy enhancement activity that cannot be applied to blind students is visual literacy enhancement, yet this limitation can be overcome by providing three-dimensional media. Unfortunately, public participation was relatively low. School committees and parents / guardians generally understood the importance of literacy for students with visual impairments, but their real contributions need to be improved. The participation of the business and industrial sectors was found adequate as they provided books, literacy facilities, and learning tools. Many foundations that care for children with visual impairment also participated this program. The results of this study are expected to be used as a scientific basis for the betterment of literacy programs in Indonesia and to encourage stronger public participation.

INTRODUCTION

The rapid distribution of information in the global era requires everyone to have basic skills to assess information, including literacy skills. Literacy skills are closely related to reading and writing habits. The data released by some parties showed that the reading skills of students in Indonesia were relatively low (Hasanah and Warjana, 2019; Wiedarti, 2016a; Wiedarti 2016b). To address this problem, the government has enacted a national program on literacy enhancement .

The implementation of the school literacy program is stipulated in the Regulation issued by the Minister of Education and Culture of the Republic of Indonesia Number 23 of 2015 concerning Character Building. Based on this regulation, it is mandatory for students to read a textbook for 15 minutes before starting a lesson. The main goal of this program is to foster good reading habit. The provision and selection of books depend on the development and needs of students; with special emphasis on books containing strong moral values, local, national and global wisdom. Based on the technical guidelines of the program implementation, the national school literacy program launched involves various parties including parents and the community.

As a national program, the school literacy program is obligatory to be implemented in Special Schools that educate children with special needs. One of the groups of students in the Special School is students with visual impairment. Therefore, the implementation of the school literacy movement program for visually-impaired students needs to be mapped. This mapping reveals the real implementation of the program and its achievements, constraints and the contribution of the public. The findings of this study can be used as a reference for the improvement of the capacity and quality of the national literacy program implemented at special schools.

Literacy skills are skills that worth enhancing, including for children with special needs. Literacy skills offer great philosophical and practical values. Philosophically, literacy skills lift up the position of children with special needs. Literacy skills supports the mastery of other skills, allowing children with special needs to develop optimally. Optimal potential development will be quite beneficial for students to live their life in terms of personal and social domains. Regarding this reason, literary programs for children with special needs need to be mapped carefully to develop methods that suit their needs.

Changes in organizational structure in in Special Schools have affected schools' readiness to implement the literacy program. Special Schools in Indonesia were initially sectoral schools, consisting of SLB-A which specifically educated children with visual impairments, SLB-B which specifically educated children with disabilities, and SLB-C which specifically educated mentally-retarded children. The changes in organizational structure affected the use of learning facilities and the professionalism of teachers and other education personnel. Integrating sectoral units into general special schools that educate all groups of students with special needs changed the map of school readiness in carrying out literacy activities. This change requires should be examined in a systematic study in order to develop literacy programs to meet students' needs.

LITERATURE REVIEW

People in common over generalize visual impairment as total blindness. Whereas, the term “blind” has been technically explained by Hidayat and Suwandi (2016) as follows. A person is visually impaired if his vision is \leq of 6/21. This means that a person is identified as visually impaired if they can read letters from a distance of 6 meters, while a sighted child can read them from a distance of 21 meters. Referring to this terminological concept, visually impaired persons are not only those who have total blindness but also referring to those with low vision. Visual impairment can occur by birth or it can develop overtime. People who develop blindness after birth have prior visual experiences which strongly affect their subsequent acquisition of knowledge. On the other hand, people who are blind by birth have absolutely no visual experience. Hence they obtain their knowledge through other four senses; one of them through touches.

Blind children are a group of students who need special treatment. The level of visual impairment varies. Some students might only have visual impairments, while other aspects, such as intelligence, hearing, and speech organs are in normal conditions. However, it is possible that there are blind students with multiple constraints such as deafness and / or mental retardation. This diverse condition requires special education services. Special services for blind students are also expected to optimally develop students' potentials and help them make social adaptations (Hidayat and Suwandi, 2016).

One form of special services for blind students is learning Braille writings. Braille letters were developed based on touch sensory (Hoskin and Davies, 2019). The Braille alphabetical order is the same as the Latin alphabet, yet Braille letters use 6-dot pattern. The pattern is arranged in two columns and three rows. Basic Braille dots can be visualized as follows.

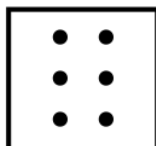


Figure 1. The Basic Pattern of Braille Letters

For easier memorization, the basic pattern is numbered in order vertically from left column to the right column as follows.

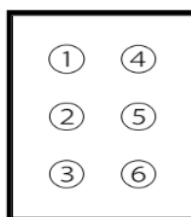


Figure 2. The Numbering of Braille Dots

The position of the dots is the basis for teaching Braille letters to blind students. Braille letters are arranged in a logical pattern. The letters a - j are arranged by using

the position points 1, 2, 4, and 5. The letters k - t are arranged by adding the position point 3 to the letters a - j. The letters u, v, x, y, and z are arranged by adding the position points 3 and 6 to the letters a, b, c, d, and e; while the letter w is arranged with the position points 2, 4, 5, and 6. The deviation of the letter w pattern is because in the original Braille alphabet this letter does not exist (Hidayat and Suwandi, 2016). The National Federation of The Blind (2009) visualized the position of the Braille dots as shown in the following figure.

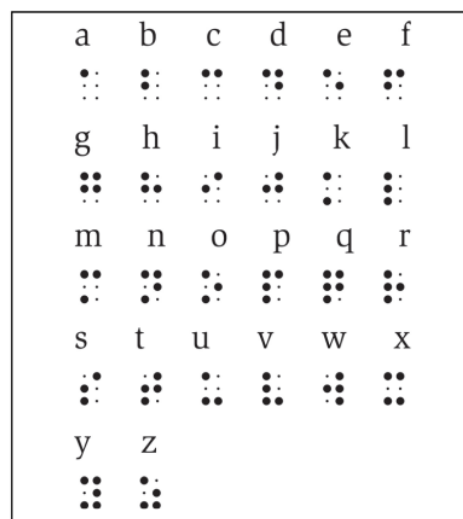


Figure 3. Braille Letters

Braille reading skill is a distinct characteristic of the education for children with disabilities. Technology and information advancement has produced various learning media in the forms of audiobooks. However, audiobooks cannot replace Braille text. Braille is the main literary instrument for blind students (Danis Association of the Blind and the International Council for Education of People with Visual Impairment, 2018). Therefore, to enhance literacy skills, children with visual impairment must be skilled at reading Braille text. However, they often experience problems when they start learning Braille. They are required to not only learn about letters, grammatical rules, and spelling like sighted children do, but they also need to learn about abbreviations and rules of use in Braille. Many teachers believe that there are differences in reading rate, comprehension of content, vocabulary development, and reading interest between alert children and blind students (Emerson; Holbrook and D'Andrea, 2009). This gap should be overcome through changes in the learning environment for blind students. Changes in the learning environment are necessary for children with special needs to accelerate their Braille reading skills improvement.

The success of the school literacy program greatly depends on the level of students' effective reading rate. The effective reading rate is measured by the number of words read per minute and the level of students' comprehension upon a text. The reading rate is influenced by the difficulty level of the text, the purpose of reading, and the level of comprehension targeted. More complex text with more detailed the purpose of reading, higher the target comprehension will lead to lower reading rate. Based on this measurement, in general, the ideal effective reading rate is around 250 - 300

words per minute which is far from the reality. Students' effective reading rate ranged between 200 - 250 words per minute, which is equivalent to the ideal reading rate of elementary students (Noer, 2014). The rate of reading Braille letters for blind students is even slower, which is around 90 - 116 words per minute (Jumaidi; Atmazaki; and Tahar, 2013). Therefore, efforts should be made to increase the Braille reading rate of children with visual impairments.

The public perception that the rate of Braille reading is very slow has been refuted by the National Federation of the Blind (2009). The largest and most influential blind membership organization in the United States stated that Braille is an efficient and effective reading medium. Learners with visual impairments can have a reading rate of over 200 words per minute. Learning Braille reading to this rate requires effort. Schiff (2009) mentioned some methods that can improve the rate of Braille reading, namely assistive technologies, job access with speech, and zoom text. Waldron; Steer; and Bhargava (2014) formulated the literacy principles for blind children as follows. First, it is necessary to make sure children with visual impairments have a lot of basic life experiences and direct access to literacy activities from an early age. Second, children with visual impairments can develop academic literacy skills that allow them to read efficiently, effectively, comfortably and happily at school. Third, various learning strategies should be applied to allow blind children to grow as independent individuals. Fourth, children with visual impairments can develop functional literacy skills to solve their daily life and work problems. Fifth, to support literacy activities, unique needs of blind children should be facilitated. Sixth, blind children need to be given the opportunity to experience reading activities which raise their awareness of the importance of literacy skills.

RESEARCH METHODOLOGY

This qualitative study put blind students as the main subject in the school literacy program (Kopeuw, 2009). The samples of this study were 65 students selected from 3 special schools in 3 different districts in Bali Province, namely: Buleleng District, Tabanan District, and Denpasar City. Samples were students of special schools at the elementary, junior high and high school levels. In this study, 3 groups of data were collected, namely data on the description of the literacy enhancement program at the Special School, constraints in its implementation, and public participation. Those data were collected through document review, in-depth interviews, questionnaires, and observations. This study put emphasis on the data of the 15-reading before starting a lesson, the availability of literacy facilities for blind students, developed literacy strategies, and public participation in literacy enhancement activities at special schools. The collected data were analyzed through 3 stages, namely data reduction, data presentation and verification and drawing conclusions (Sugiono, 2012). Data reduction was done to classify the data based on certain similarities to make the data simpler. Data presentation was done by visualizing the data in the forms of tables, graphs, etc. for easier interpretation. Before drawing conclusions, verification was carried out as data triangulation.

RESULT & DISCUSSION

The Implementation of Literacy Enhancement Program for Blind Students

The school literacy program is a national program that must be implemented in every school. Its main goal is to create positive literacy habit in Special Schools. The operational principle of this program mentions that the literacy enhancement program is carried out according to predictable, balanced developmental stages, takes place in all areas of the curriculum, meaningful reading and writing and emphasis on the importance of spoken discussions and develop awareness of diversity (Wiedarti, 2016a).

Based on data from interviews and observations 15-minute reading activity before lessons start implemented in special school for blind students was carried out in 3 patterns; teacher's reading aloud, using an audiobook, and providing a Braille reading corner. Those options were taken to facilitate diverse characteristics of blind students. The first option is quite determined by students' age. This activity affect the students' Braille reading skills. Some students might be familiar with this type of text, but some other might not. The second constraint relates to other disabilities that follow; some students might be totally blind, but some students might be partially blind, or some others are blind and deaf. The third one relates to the level of visual impairment. In this group there are students with low vision and blindness. Those three aspects ensure that the program matches predictable and balanced developmental stage and encourages the development of oral and written culture. The use of 3 literacy patterns is assumed to facilitate the need for literacy enhancement among blind students.

Teachers' reading is a popular method applied to teach blind students at the elementary school level, especially in the first 3 years. During this period, students begin to learn Braille letters. Tactile sensitivity begins to develop which is a good start in reading Braille. This condition is a striking difference from the one of sighted children. In elementary school, sighted children are generally able to read and write down simple things they learned in kindergarten. Yet, blind children will start learning Braille in the first year of elementary school, while not all students have equal readiness to start learning. Learning Braille letters for beginners is quite challenging, even though teachers try their best to teach it. Beginner learners must first have the prerequisite skills. Unfortunately, some students are lack of sensitivity and have difficulty integrating the Braille dots. In this condition, teachers will have to read the text out for them. This option is taken based on the assumption that the ability of blind children to comprehend a text is equal to those of sighted children. Emerson; Holbrook, and D'Andrea (2009) emphasized that students' comprehension and ability to decode between children with visual impairments and blind students can be seen in the decoding ability. Teachers can optimize students' comprehension optimizing auditory stimulation and teaching Braille as they go.

The second strategy is to use audiobooks that optimize students' hearing sense. This method takes the advantages of information and technology

advancement. The target books are read out by the narrator in the form of audio recordings. In this case, it is necessary to train the narrator to make clear and unambiguous pronunciation. The intonation should be appropriate as it affects the interpretation of the message. Musical illustrations can be inserted in the recording process. Based on the data, the types of audiobooks used at the Special Schools in Bali Province were unabridge and abridge and were generally commercial products. Unabridge is a complete audio record of a book; while abridge is non-complete or brief audio recording of a book (Camalia, 2016). The use of audiobook can be done in computer room under teachers' supervision. Based on the results of the interviews, this method is the most-used method in Special Schools in Bali Province.

The third method was enhancing the literacy by creating Braille reading corner. This method is the most ideal one to meet the characteristics of blind students since reading and writing skills in Braille are the unique characteristics of blind learners. Reading and writing skills in Braille are basic literacy requirement. In addition, Braille reading corner offers flexibility of time and it promotes students' interest in reading independently. The provision of a Braille reading corner allows students to develop their literacy regardless of time and learning schedule. Students can choose meaningful reading material to their interests and needs. This method is believed to foster students' reading interest. Braille reading corners are generally placed at the back of the classroom to make it easily accessed by students.

In Special Schools for blind students, literacy enhancement activities are generally integrated into main lessons for children with special needs. Generally, reading materials are functional and relevant to their talents and interests. Each school can develop a variety of life skills programs, such as music, massage skills, literary arts and theater. Integrating the literacy content to the curriculum for children with special needs is an attempt to improve the role of literacy activities in students' daily life through literacy-based habituation, development and learning. Facts that occurred in the field were observed by referring to the 3 implementation method. Literacy enhancement program Special Schools for blind students is directed at early literacy and basic literacy components which are implemented through those methods. Media literacy and technology literacy are enhanced through the use of audiobook in the computer room. Library literacy is implemented through the provision of Braille reading corners in classrooms. Due to the visual impairment, students cannot do visual literacy activities effectively. Hence, this activity is replaced by textual literacy by using three-dimensional artificial objects. Those methods were expected to improve the average effective reading rate of blind students in Bali Province which were between to 90 - 115 words per minute (Simon and Huertas, 1998).

Constraints in the Implementation of Literacy Enhancement Program in Special School for Blind Students

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The teaching and learning activities for children with special needs, including those with visual impairments, require greater effort. Based on the interview, it was revealed that the implementation of the literacy program at special schools

for blind students was constrained by 2 factors; internal factor and learning environment factor. Internal constraints were related to emotional, social and psychological problems. The social problem found in blind students was related to anxiety problem which triggered fear and worry. Consequently, students felt doubtful when carrying out literacy activities. Anxiety often triggers anger, irritability, depression, and sadness. In fact, blind children often got very frustrated, felt useless and felt that they were the burden on the family. In one extreme case, a blind child was found to tear a book off while being taught to read Braille. This behavior reflected his frustration. Another obstacle that comes from internal learners is related to the sense of inferiority. Many blind children feel embarrassed and inferior in front of typical children. This shame deprives them of their achievement motivation. Feelings of shame are getting stronger when blind students fail to correctly respond to stimuli. As a result, they often withdraw themselves from social interactions. This fact hinders the implementation of literacy activities at special schools in Bali Province. To overcome these internal constraints, there needs to be personal service that facilitates the development of the potential of each student. Personal literacy services are expected to maintain students' motivation.

The second constraint is related to the learning environment regarding the limited learning materials for blind students. Students in special schools also need equal distribution of text literacy media to enhance their literacy skills. This need also relates to the changes in the administration of special education, in which each school provides education services for children with special needs. Currently, special schools are no longer classified into SLB-A which specifically served blind children or SLB-B which specifically served deaf children, or SLB-C which specifically served students with mental retardation. Instead, special schools provide general education for any type of disabilities. Students' low reading rate of between 85-101 words per minute was also a constraint. Therefore, Braille text which has been summarized telegraphically without reducing the message in the text is needed. Another effort that can be done to improve the implementation of this program is to provide an adequate number of audiobooks on a variety of topics.

Mobility constraints of blind students also require more intensive role of librarians in Special Schools. Librarians play important roles in book distribution. Problems in book distribution in all Braille reading corners commonly occurred. In addition, assistance in reading Braille letters is also necessary, which assistance can be provided by teachers and senior students who are skilled at reading Braille.

Public Participation

The success of the literacy movement program in Special Schools in Bali Province requires public participation. The implementation guidelines regulate the involvement of public participation, such as school committees, parents / guardians of students, business sector and industries. The questionnaires revealed that in general, public participation was still relatively low. The data showed asymmetry between public's comprehension and their concrete action. All school committee members and parents / guardians understood the

importance of school literacy activities; however, this understanding was not followed by concrete actions, such as providing supports for literacy facilities, infrastructure, support for literacy committee, and develop school networks. These steps are concrete forms of support from the school committee and parents / guardians to the literacy enhancement movement program at the Special Schools in Bali Province.

Supervision and assistance for literacy activities at home also need to be improved. Based on the questionnaire, mostly, parents admitted to supervising and assisting literacy activities in their respective homes. The supervision and assistance carried out by parents seemed ineffective because in general they stated that they did not understand, or even did not know Braille letters at all. This problem can be addressed by forming Braille literacy committee at each Special School with adequate participation of parents / students' guardians. Active participation from business and industrial sectors is believed to significantly improve students' motivation to enhance their literacy skills. Based on interviews with sample schools, most of Braille books and other Braille facilities were procured by the government and donations from other parties, such as publishers and agencies engaged in this sector. The participation of the business and industrial sectors can be enhanced in the form of funding for various literacy competitions. Those sectors can also show their participation by allowing student tour/visit to their factories. Such activities can foster students' confidence, social and mobility skills. Allowing student visits is a concrete effort supporting environment-based literacy activities, which frequency and quality should be increased.

CONCLUSION

The national school literacy program does not exclude Special Schools. To support this national program, the Government of Indonesia through the Ministry of Education and Culture has set guidelines for its implementation. However, the implementation of this program for blind students was still hindered by some constraints, including the relatively low Braille reading rate. Students' average reading rate was found much slower than the ideal one. Thus, it is necessary to have Braille text packaged in a concise manner, without reducing the core message of the text. Other constraints occurred from the internal personalities of students, such as anxiety and frustration which reduced their achievement motivation. To overcome this problem, schools have developed three methods of literacy activities for blind people, namely text reading by teacher, using an audiobook, and creating Braille reading corner in the back of the classroom. Those methods support the enhancement of early literacy, basic literacy, library literacy, media literacy and technology literacy. Due to their visual impairments, students could not do visual literacy activities. Therefore, visual activities were compensated by greater exposure to three-dimensional artificial objects that focus on the use of the tactile senses. The success of this national program requires public support. Many businesses and industries entities have shown their support through concrete actions. Concrete support from school committees and parents / guardians should be enhanced even though they already had proper understanding about the importance of literacy

skills for students. The school committee can form a Braille literacy committee that accounts for the development of literacy skills of blind students.

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