

# Reading Habit Development with ICT Support for Students with Specific Learning Disabilities in Jember, Indonesia

Sumardi  
*Universitas Jember*  
 Jember, Indonesia  
 sumardi.fkip@unej.ac.id

Aryni Ayu  
*Universitas Jember*  
 Jember, Indonesia

Muhammad Naim  
*Universitas Jember*  
 Jember, Indonesia

**Abstract**—This study aims to help improve the reading habit, especially among dyslexia. The method used is quantitative through observation, interviews, and questionnaires. Talent is a guideline that can be learned by all children. Dyslexia is not a defect, but rather a reading disorder that should be part of the program's educational progress. The ability to read is an important part of a dyslexic child to master the intelligence of others. Even though, at 3% of children in Jember, including disability, and literacy in Indonesia just 0.01%, but there is a learning strategy with ICT-assisted flow by 12 steps and the percentage of willingness to read the interview, so it can help children learning disabilities to make a habit of reading. 50% of the research results in some schools have increased inclusion Jember marked an increase in the child's ability to read a variety of literature, for cognitive and psychomotor intelligence

**Keywords**—education, disability, ICT, dyslexia, reading habit

## I. INTRODUCTION

No Child Left Behind, one of the policies made by the US government since 2012 that no child is left behind to pursue an education. In Indonesia, about 4.1 million children aged 6-21 years are out of school as a result of unfavorable circumstances multidimensional [1]. The problems of education in Indonesia one of them is there is a gap between a normal children's intelligence with intelligence dyslexic children. Persons with disabilities about 7-10% of the total number of Indonesian children, and about 3% in Jember, East Java, while in the era of knowledge-based society, the attention not only on technological progress but how education and technology to meet the needs of students, especially for people with disabilities. Chettri [2]. states that reading is an important way to develop knowledge, despite the limitations of the intellectual, at least read generate curiosity among students. for decades, research-based educational innovation and technology-focused research on the development of learning can meet the various condition of students [3]. Reading is the successor to the children drove to process as in Annie [4] in "An American. Childhood" provides that reading becomes a way to help a nation or community to build an influential person.

Therefore, research on the development of reading habits with the help of technology and creative learning strategies, greatly assist students with special needs,

especially in school inclusion in Jember to understand and develop the skills of education in accordance with national education goals, character, cultured and noble character. The method used in this research is to interpret the results of quantitative research data. The results include the form of a table: (1) the percentage of like reading, (2) how long have you read, and every week, and (3) the type of book you like. In some school's inclusion in Jember, disability student training has become an integral part of the program to tackle and overcome reading difficulties. Regent of Jember, dr. Faida, M.MR, has emphasized community who have a son or daughter has a disability to free schools and colleges in any department. So, No Child Left Behind education. Thus, reading habit, a dialectic activity that can encourage students to think of dyslexia as an intellectual agent contributes to the progress of the nation. References used are associated with development disabilities as discussed in [4, 5, 6, 7, 8], and so that the details can be found in the reference section.

The rest of this paper is organized as follow: Section II describes proposed research method of this work. Section III presents the obtained results and following by discussion in section IV. Finally, Section V concludes this work.

## II. PROPOSED METHOD

To learn reading and the role of technology in children with disabilities in Jember, East Java. The design study aims to measure the Development of the reading habit among students with disabilities with the help of technology and the role of teachers and families. To develop the intellect to national education goals. This study uses observations taken from 2-3 disabilities educational institutions, do some forum discussion group on educational institutions to ensure that the policies and techniques applied in the learning activities, as well as surveys and special approach committed against children with disabilities. This study is a Quantitative Research, using primary data collected directly from the object of research. The existing population of 49 children with disabilities in institutions disabilities in Jember.

The sample of 20 children. Variable data used are independent variables consist of the technology, and the dependent variable dynamic namely: an increase in reading habits through family, teachers, and self-assessment. Research instruments include a questionnaire to the agencies

and in-depth interviews to persons with disabilities. The questionnaire consisted of questions about the educational approach is used, the role of local government in the handling of disability, use of the library as reading material for increased reading habits, the availability and proper use of a computer. Analysis of data using data analysis componential drawn from observation, interviews, and documentation selected.

1. Research Design: Quantitative Research
2. Population : 49 children with disabilities in institutions disabilities in Jember
3. Samples: 20 children
4. Variable: the technology, and the dependent variable dynamic namely: an increase in reading habits through family, teachers, and self-assessment
5. Instrument: questionnaire to the agencies and in-depth interviews to persons with disabilities
6. Data Gathering: observation, in-depth interview, documented selected
7. Data Analysis: analysis componential drawn from observation, interviews, and documentation selected

Fig. 1. Method of research Reading Habit Development with ICT Support for Students With Specific Learning Disabilities in Jember

### III. RESULTS

Results of the study revealed that the reading skills of children - children with disabilities in Jember by sampling a number of 20 people there is little significant progress. From many questions posed such as: Are you like to reading in Table I, how often the teacher asks the students to read, what books they like and how long to read in Table II, how often read through a computer, and how to improve their reading within the limits. Last, the type of book you like in Table III.

TABLE I. ARE YOU LIKE READING?

No.	Answer	Respondent (%)
1.	Yes	75%
2.	No	4.3%
3.	Not Both	

TABLE 2. READING TIME

Daily		
No.	Answer	Respondent (%)
1.	0 – 60 minutes	54.4 %
2.	61 – 120 minutes	30.4 %
3.	>121 minutes	7.6 %
Weekly		
No.	Answer	Respondent (%)
1.	120 – 180 minutes	15.2 %
2.	181 - 300 minutes	12 %
3.	>300 minutes	20.6 %

The length of the table to read every day and liking of reading, mostly participants answered one hour a day, and every week approximately five hours. It seems that the habit of reading every day that just one hour, it is still less when

viewed with the demands of the task at school, and the creative approach from teacher in school.

TABLE III. THE TYPE OF BOOK YOU LIKE

No.	Answer	Respondent (%)
1.	History	20%
2.	Adventures	12 %
3.	Poem	20.6 %
4.	Astrology	4.3%
5.	Serial Book	19%
6.	Travelling	18.5%
7.	Loving	10%
8.	Supranatural	13%
9.	Humor	30%
10.	Drama	13%
11.	Games	45%
12.	Detective	40%
13.	Folklore	12%
14.	Non – Fiction	12%
15.	Sports	5%
16.	War Story	7.6%
17.	Science-Fiction	8.7%
18.	Biography	2%
19.	Arts	17.4%
20.	Mystery	18.5%

### IV. DISCUSSION

The traditional approach in inclusive education states that dyslexia or disability is a representation of difficulty reading, which means disrupting normal intelligence, so it has no sensory and motor conditions were adequate for learning. It is a disorder quite often identified in approximately 5-11% of school children, depending on the environment. If this can be handled with the help of ICT or technology, the ability to read which encourage normal intelligence can support to aggregate information, which becomes a difficult child - dyslexic children. The dominant view that exists in children - children with disabilities characterized by the shortage of language processing as a result of phonological.

Asymmetry in the visual and verbal information processing in people with dyslexia might contribute to learning styles, so it takes awareness of teachers, technology support, and increased the frequency of reading. In recent years, there are opinions that dyslexia itself carries a learning style, which is characterized by global perception, thinking in images, thoughts, and curiosity intuitive and multi-dimensional, which can significantly help a dyslexic child has achievements in the field of scientific and artistic intelligence above the normal children. Of course, that should be supported by a creative approach to making sure the child - the child has a disability of reading habit information. Therefore, it appears that creativity should be more often applied to children - children's disabilities.

In the context of post-modernism, the habit of reading is nothing new to be implemented. Progress era that cannot be resisted and cannot be predicted by Giddens, should be balanced with the progress of the human mind. What do you want to be elaborated on the habit of reading is a human way to overcome loneliness [2], satisfy human curiosity about different things and phenomenal in everyday life? Reading is the successor to the dropping off children, adolescents, adults toward literacy process. What is revealed

by Annie in [4], reading becomes a way to help a nation or community to establish an influential person and psychological studies recently showed as in [5] that improved reading skills also lead to improvements in overall learning abilities, far beyond the mere receipt of a read, so the impact on the quality of a person while in the world of work. Further study outlines, reading has become habitus in developed countries. National Education Association reports nearly 56% of adolescents in the United States read more than 10 books per year, 46% of children read two books every two months with the category of young literature and adult literature, 68% read more than 20 books per year [5].

In Indonesia, the categories of children with disabilities - children amounted to about 20% of the 4.1 million children in school. In the field of literacy, the ability to read Indonesia reported by Most Littered Nation in The World 2016, compared to countries in Europe and America, the ability to read 'them' as much as 25% - 28%, Japan 15% - 18%, and Indonesia only reached 0.01%. Facts reveal, intellectual ability juvenile Grade 3 High School (SMA) in Indonesia, together with the intellectual ability of students of class 2 Junior High School (SMP) in the United States and Europe [6]. Indonesia sequence literacy stands at 60 out of 61 countries in 2017, making the reading habit becomes part of the basis of a nation's intellectual development.

Can we say that child disabilities are not able to raise that number? Talent is generally accepted guidelines. This implies that every child has the ease of learning, level of development, the acquisition of knowledge, and the child usually disabilities are not successful in school activities. Of course, if the teacher or school institutions do not pay attention to correct - correct their learning style (disabled children) with special treatment. How to teach outdated with the uniform teaching methods and lack of reading material can no longer help students, especially students with a disability. This is the reason why the multi-sensory approach to the use of appropriate ICT can encourage children disabilities to have the habit of reading. The first step was taken by researchers from the questionnaire and in-depth interviews using a special include (1) the percentage inquire love reading, (2) how long have you read, and every week, and (3) the type of book you like. In some school's inclusion in Jember, disability student training has become an integral part of the program to tackle and overcome reading difficulties. Regent of Jember, dr. Faida, M.MR, has emphasized community who have a son or daughter has a disability to free schools and colleges in any department. So, No Child Left Behind education.

Judging from Table 1. Regarding the joy of reading, mean that reading is a leisure activity, which is not yet a requirement, and in Table 2. Regarding How Long Reading and Every Sunday, about five hours. It seems that the habit of reading every day that just one hour, it is still less when viewed with the demands of the task at school. The reading is not an activity that is intentionally scheduled, because reading just like but has not become a hobby. Shown with answers like covering 75% of the answers, and the hobby of 52.2% only. On the other hand, according to Nathanson, *et al.* in [7], a sense like this is basically concerned with enthusiasm. As an enthusiasm that individuals claiming to

be like reading means having a pleasant experience while doing the reading activity. This applied more to ICT is still true - it uses a special computer braille to be learned slowly by disabled children. The introduction of reading to children with disabilities should be applied in stages of learning that focuses himself with engagement [8], which is read verbatim, permeates every emotion there than per story in the book, and read it aloud - loud. From there, turn up the power of language that was previously inconceivable. The child's disabilities can do. With the help of teachers, audiovisual, YouTube, other technology tools, and motivation to read.

In Table 3. Type Books Preferred. Of the most desirable types of books, novels occupy the top position. Participants seemed mostly liked more reading materials contain more material. While three preferred themes are humor, detective, and adventurers. Topics love being part of the most interesting to read. The results are likely caused most of the participants are women who, according study subjects interested in the topic of women more romance than on cars, astrology, sports, traveling or means of warfare. From the answers of participants is also seen that the books that are preferable expository narrative. Books that are narrative to express the events real or fictional, personal experience which is a series of stories. Expository while trying to explain to readers by presenting information using the principles and patterns of behavior are common. In general, the kind of expository books that use language that is typical of themes and topics covered. For example, a book about the language used cars are usually better known by individuals who are interested in the book because they already know him. The prior knowledge they have adapted to the new material will appear. Usually, the books that are referential manifold expository (scientific textbooks). It does student disabilities in inclusive schools in Jember have imaginative characters, and tenacious, they want the story text, contains a series of stories that can be imagined in their minds.

Therefore, to increase awareness of reading habit among dyslexic children needed ICT is also supported by a learning process flow. Inclusion in schools Jember, 50% apply a flow that facilitates the learning process for students with disabilities achieve focus condition, enjoy the learning process, and internally motivated. Learning flow needs to consider the characteristics or conditions of students with disabilities and learning methods that can be applied. Characteristics of children with special needs that need to be identified include sensory, cognitive, language, social, learning styles and multiple intelligences. Broadly speaking, the learning flow for students with disabilities include: 1) relaxation or meditation at the beginning, middle, and at the end of the lesson, 2) establishment of learning targets of each session is described, 3) granting and training abilities of people with disabilities in preventing distractibility, 4) classrooms made convenient, comfortable sitting position, 5) implement a way to give the material according to the learning style of persons with disabilities, 6) provision of material tailored to the learning progress (abilities of people with disabilities) have been achieved, 7) utilizing props are made by persons with disabilities in study, 8) to learn through play, using music, roleplay, and the form of other

materials delightful, 9) on each learning session begins with the story of success with disability in life, 10) provide skills self-affirmation of persons with disabilities, 11) explanation of benefits short-term and long-term associated with mater in everyday life, and 12) giving feedback individual and the overall learning process at each study session.

The learning method that can facilitate the achievement conditions of flow includes relaxation and feedback can facilitate focus and enjoy the learning process. The success story of individuals who experience disability and self-affirmation condition facilitating internally motivated. Learn while playing and learning methods based on learning styles to facilitate focused, enjoy the learning process, and internally motivated. The importance of the correlation between the learning process to understand the character of dyslexia, the importance of technology for development knowledge-based society. Reading habit, a habit which is a dialectic of activities that encourage students to think as an intellectual agent contributes to the progress of the nation. At the very least, contribute greatly to the increased development of reading habit which helps increase the intelligence of dyslexic children. No child is left behind in education, whatever the conditions.

#### V. CONCLUSION

The increase in the ability of children disabilities or dyslexia cannot be hindered simply because of limited ability. Talent, a guideline that can be learned by all children. Linking literacy, awareness for learning, and distance themselves from the traditional way of teaching pessimistic about their ability. Is one way to help children with dyslexia to understand him. Maslow calls this self-needs to learn independently to understand themselves. An awareness that cannot be equated with another people's character. The principle of the developing world No Child Left Behind (2002-2015), is not really a gap when we want to see how big the child's desire for learning disabilities understand a knowledge. Educational Inclusion in Jember, through observation, questionnaires, sample depth interviews with 20 children, it was found that some of them still need to be assisted in a sustainable manner. Ability to read to children disabilities are fundamental to understanding other intelligence. By using technology such as audiovisual, internet, video, and application of learning models of flow can help improve the reading habit among dyslexic children. Reading habit, a habit which is a dialectic of activities that encourage students to think as an intellectual agent contributes to the progress of the nation.

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