

# Development Of Teaching Book For Dyslexia Children With Learning Style Intervention Assisted By Audio Visual Media At Elementary School

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## Abstract

The purpose of the study was to design of developing teaching books for dyslexia through learning style intervention assisted by audio-visual media for elementary school students. This research is Research and Development. Data collection uses a needs questionnaire, expert validation sheets, student learning outcomes tests, interviews, observations and documentation. Data analysis techniques were carried out qualitatively and quantitatively. The subjects in this study were dyslexic students at SDN Brambang Karangawen Demak with a total of three of the third grade students. The result of the study is that the design of developing audio-visual-assisted teaching books has characteristics, including the use of good and easy-to-understand language, the presentation of the teaching books equipped with pictures and videos, and the contents of the teaching books describing the author's ideas. The teaching book development product consists of three parts, namely the introduction which contains of the title page or book cover, the introduction, and the table of contents. The section consists of letter introducing, words repeating, writing, drawing, direction and story. The closing section contains reflection. The conclusion of study is the design of the teaching book is adapted to the characteristics of a good teaching book and the needs of dyslexia students.

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## Introduction

Reading is one of the most important language skills in the learning process; where by reading students will gain knowledge. The ability to read has an important role to help students learn many things. In addition, the ability to read is the basis for mastering various fields of study that must be learned from an early age. According to Abdurrahman (2009: 204) if a child at an early age does not immediately have the ability to read, he will face many difficulties in learning various fields of study in subsequent classes.

Reading skills are provided to students since elementary school. This is expected to be able to handle the difficulties experienced by children to improve language skills, especially reading skills. However, the fact is that in elementary schools there are students who have difficulty reading. They feel difficult to capture and understand the information presented through various teaching books, books, supporting materials, and other written learning resources. It causes the learning objectives are not achieved optimally. Learning achievement will be lower than students who have the ability to read fluently. One of them is at SDN Brambang Karangawen Demak. The writer found that there were three students who could not read yet.

Fajar's research (2012) entitled "The Effect of Visual Stimulation to Improve Reading Ability in Dyslexic Children" aims to investigate the effect of visual stimulation to improve reading ability in dyslexic children in elementary school. dyslexia was 3.141 with p of 0.005 ( $p <$

0.05). These results indicate that there is a significant difference between pre-test and post-test of dyslexic children's reading ability in elementary school students that dyslexic students have better reading skills after being given visual stimulation than before being given treatment.

Nurul Arifah (2017) have conducted the research entitled "Development of Multimedia Interactive Learning Reading Skills Beginning of Dyslexia Students Class III SDN Bangunrejo II Yogyakarta". This research produces a feasible interactive learning multimedia. This study uses development research (R&D). Data collection techniques use interviews, observations, documentation and questionnaires. Data analysis uses quantitative descriptive methods. The results of the media expert's assessment get a score of 3.27 in the appropriate category, the assessment of material expert 1 gets a score of 3.88 in the appropriate category, the assessment of the material expert 2 obtained a score of 3.61 in the appropriate category, the product trial received a score of 0.92 in the appropriate category and the use trial received a score of 1 in the appropriate category. The overall results of the interactive learning multimedia trial were feasible. Therefore, the use of media is very helpful for dyslexic students in improving reading skills.

Teaching book is teaching books that are used as references in certain subjects (Akbar, S. 2013:33). Majid (2008: 140) states that a good teaching book is a book that has three characteristics, namely using good and easy-to-reach language; the presentation of the book is attractive, equipped with pictures and descriptions; and the content of the book that describes the author's ideas. Mercer (1987) in Abdurrahman (1996:204) defines dyslexia as a syndrome of difficulty in learning the components of words and sentences, and in learning everything that is fair with time, direction, and time. Leoziana (2017: 52-54) explains that there are two types of dyslexia, namely the auditory type (hearing) and the visual type (vision).

Martini Jamaris, (2014: 140) mentions several characteristics of students who have dyslexia, including: (1) Reading in reverse what is read, such as: duku is read kudu, d is read b, or p is read q; (2) Writing the letters backwards, (3) Having difficulty in repeating the information given orally, (4) Poor writing quality, the character of the letters written is not clear, (5) Having poor drawing skills, (6) Difficult in following orders given orally, (7) Having difficulty in determining the left and right direction, (8) Having difficulty in understanding and remembering a story that has just been read, (9) Having difficulty in expressing thoughts in writing, (10) Experiencing dyslexia not due to poor eye and ear conditions or brain dysfunction (11) Having difficulty recognizing letter shapes and pronouncing letter sounds (12) Having difficulty combining letter sounds into meaningful words (13) Very slow in reading because of difficulties in recognizing letters, remembering letter sounds and combining letter sounds into meaningful words.

Learning styles according to James and Gardner in Hawkar (2014: 241) are complex ways and conditions in which students perceive and feel most effective and efficient in processing, storing and recalling what they have learned. According to Bobbi De Potter & Mike Hernacki (2013:112), in general, human learning styles are divided into three major groups, namely visual, auditory and kinesthetic learning styles. Slamet and Markam (2003:135) suggest that intervention is a method to change a person's behavior, thoughts, and feelings. So learning style intervention is a way to change one's behavior, thoughts and feelings by adjusting one's learning style. Audio-visual media is a type of media that includes audio media (can be heard) and visual media (can be seen) (Basyiruddin Asnawir, 2002: 98). In this study, the use of audio-visual media in teaching book is expected to improve learning outcomes for learning to read with learning style interventions.

Teachers need to develop interesting teaching materials so that students do not feel bored and attract students' reading interest (Sulistiyoningsih Astriani et al., 2021). Based on the descriptions above, it is necessary to develop textbooks for dyslexic children with learning style interventions assisted by audio-visual media so that students can use learning so that they can improve the reading skills of dyslexic children in elementary schools.

### Method

This research is a Research and Development. According to Seels & Richey, development research is a systematic study to design, develop and evaluate programs, processes and learning outcomes that must meet internal consistency and effectiveness criteria (Punaji Setyosari, 2010: 194-195). The subjects of this research were three students of the third grade at SDN Brambang Karangawen Demak. According to Arikunto (2006:134), if the number of subjects is less than 100, it is better to take all of them so that the research is a population study so that this study does not use a sample because it is a population study. Data collection techniques include observation, questionnaires for teachers and students, interviews, documentation. Data analysis of the needs for textbook development is carried out by determining the characteristics of needs according to the perceptions of teachers and students.

### Result and Discuss

In developing textbooks for dyslexic children, researchers used learning styles and audio-visual media to improve the abilities of dyslexic children. The results of research by Evangelos Tsampalas, et al (2018) there are differences in the learning characteristics, needs and achievements of dyslexic students. These differences shape each individual's learning profile that reflects his or her learning style and strategies. Applying a multisensory approach, teachers can help students find their own learning styles to improve academic achievement. Research on dyslexia also conducted by Sioned Exley (2003) showed that five out of seven students made significant progress in spelling and number recognition. Research by Annie Magnan, et.al (2004), the results showed that the experimental group showed significant results in word recognition and provided evidence that audio-visual training was effectively used in dyslexic students.

The results of the design of teaching book were obtained from the results of filling out needs questionnaires by teachers and students, analysis of the type of dyslexia, analysis of forms of intervention, analysis of learning styles and documentation derived from the theory of experts. Teaching book design with learning style interventions assisted by audio-visual media for dyslexia were developed based on the characteristics of good teaching books according to Majid (2008: 140) stating that good teaching books are (1) linguistic aspects, (2) presentation and (3) contents. This teaching book was also developed based on the characteristics of dyslexic children according to Martini Jamaris, (2014: 140) so that the material contained in the teaching book is expected to be more precise. Teaching book are equipped with video links and barcodes according to children's learning styles, namely visual, auditory and kinesthetic so that children can choose videos according to their learning styles so that learning outcomes are maximized. The characteristics of teaching book are:

#### 1. *Use Good and Easy to Understand Language*

Based on the results of the needs analysis of teaching book development, the characteristics of teaching book development from the linguistic aspect are (a) the language used

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is communicative and easy to understand (b) the composition of sentences used in teaching book is dense and contains (c) Use effective and EYD-appropriate grammar (d) The introduction of words in teaching book using examples of nouns that are often used or seen by children in everyday life.

*2. Presentation of teaching book is interesting, equipped with pictures, and videos*

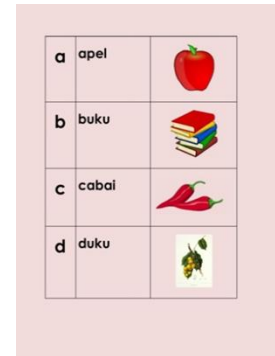
The Teaching book presentation can be explained that (a) The purpose of teaching book is quite clear, equipped with student activities; (b) The order of presentation of the teaching books between chapters is interrelated; (c) The presentation of teaching book is adjusted to the condition of dyslexic children based on the intervention of children's learning styles consisting of visual, auditory and kinesthetic learning types; (d) Teaching book are presented in an attractive manner equipped with reading, writing, drawing and watching videos; (e) teaching book information is equipped with video links and barcodes. Each chapter consists of three links and a video barcode based on the child's learning style. The videos presented are short videos with a maximum duration of three minutes so that children don't feel bored while watching videos. The video is uploaded on the author's you tube channel; (f) The size of the teaching book is A4 (21cm x 29.7cm); (g) The font used in the teaching book is Century Gothic MS with size 12; (h) colors are presented in the teaching book, which is not only using one color but colorful colors so the looks attractive; (i) Illustrations in teaching book are equipped with real pictures and cartoons as well as supporting videos. The content of the video is presented in accordance with the material written in the teaching book and the pictures are also the same as those in the teaching book; (j) Presentation of the teaching book display design according to the content of the material, namely learning for dyslexia children.

*3. The contents of the teaching book describe the author's ideas*

The contents of the teaching book for dyslexic children were developed based on the author's idea. It is adapted to the theory written by Martini Jamaris (2014: 140) which consists of reading, writing, and drawing, remembering stories and learning left-right directions. The contents of the teaching book can be explained that (a) The type of teaching book developed is a textbook assisted by audio-visual media, (b) The material highlighted is material that presents text, images and videos; (c) The form of presentation of the material is in the order of letters, examples of words, pictures and presented in videos; (d) the content of the material is material that creates enthusiasm for learning to read



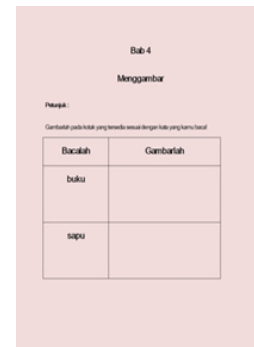
Picture 1.1 Design of Learning Instructions in Textbooks with Learning Style Interventions for Dyslexic Students



Picture 1.2. Design of Letter and words Recognition equipped with Picture



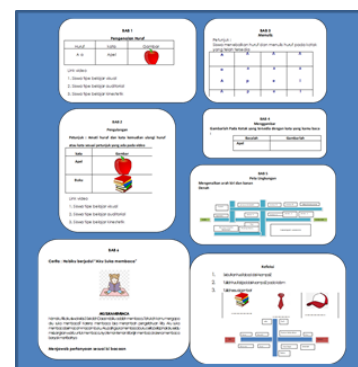
Picture 1.3. Design of Chapter 2 Repetition of words



Picture 1.4. Design of Chapter 4 Drawing



Picture 1.5. Design of teaching book cover



picture 1.6. Design of content teaching book

The product development of teaching book for dyslexia children of this research consist of three parts as follows:

1. Introductory ; In the introduction to the student book, it consists of (a) the title page or book cover, (b) the introduction, (c) the table of contents
2. Content ; The content section in this prototype consists of learning materials for dyslexic children consist of :Chapter I is letter recognition, Chapter II Repetition, Chapter III: Writing, Chapter IV: drawing Chapter V: Direction and Chapter VI: Stories
3. Closing ; The closing section is the end of the book which contains reflections

### Conclusion

The conclusion of this study is that the design of developing audio-visual-assisted teaching books has characteristics such as using good and easy-to-understand language, presenting equipped with pictures and videos, and the contents describe the author's ideas. consists of three parts, namely the introduction which contains the title page or book cover, the introduction, and the table of contents. The content section consists of letter recognition, repetition, writing, drawing, environmental maps and stories. The closing section contains reflection.

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