Abstract

Beginning writing skill is still a problem for children with Attention Deficit Hyperactive Disorders (ADHD) of disabilities. Creativa module of beginning writing with finger painting technique was the new breakthrough to answer this problem through this research. The aims of this study were to display development process and validation of creativa module. Type of research used was Research and Development (RnD) with Analysis, Design, Development, Implementation, and Evaluation (ADDIE) stages. The analysis stage included material analysis by determining competency standards and needs module analysis through literature study and interview with teacher. Design stage was done by designing a draft creativa module. Development stage by assembling draft components and entering the content validation stage. Implementation stage was a teacher had tested the creative module on 3 ADGD childrens in class II SLBN Polewali. Evaluation stage by reviewing the result of observation and discussion with teacher related to the implementation of module. The feasibility of the module was assessed by material expert, media expert, and practitioner (teacher). The material expert stated that the module developed was sufficient and media expert and practitioner stated that feasible. The Implication of research was ADHD children can increase the duration of focus, is interested in something new, unique, involving visual learning and physical touch then the teaching materials in school should fulfill these four things or use play therapy.

Keywords: ADHD; Finger Painting; Attention; Learning Modules; Play Therapy

Introduction

The ability to write is very important for school-age children because it is part of the necessities of life or basic literacy that goes hand in hand with the ability to read and count (Affrida 2018). Even though children are now exposed to computers, handwriting is still the choice used in the classroom and the community. In this regard, the ability to write affects academic success in the future, so at the early level of education, this ability is a prerequisite for most class activities (Li-Tsang et al., 2018; Fenollar-Cortés et al., 2017). Those who experience writing difficulties will experience academic failure. Based on study resultsSolihin et al (2018) stated that the low writing ability of students caused learning difficulties and increased the dropout rate three times higher.
Development of a Finger Painting-Based Creativa Module for Writing Beginnings for Children with Attention Deficit Hyperactive Disorders

19 out of 20 children with special needs do not yet have the writing skills to succeed in school (Graham, Hebert, and Harris 2011) including children with Attention Deficit Hyperactive Disorders (ADHD) (Capodieci et al., 2018; Fenollar-Cortés et al., 2017; Kaiser et al., 2015). Based on the results of observations and interviews with related homeroom teachers at SLB Polewali. Judging from the learning process, students with ADHD show difficulties in focusing attention (concentration) and experience difficulties in starting writing. They have difficulty writing letters correctly. When students are faced with Indonesian lessons in terms of writing letters, students only write a few unclear letters, even though the teacher has shown copies of the letters to be written. The main problem is that they are confused about determining the components of word formation (Farhangnia, Hassanzadeh, and Ghorbani 2020). This condition is identified as difficulty in starting writing. This indication shows that there is a need for an effort to be made so that beginning writing skills can increase.

One way to improve the ability to focus attention and write is by using the finger painting technique (2015 BFFs). Finger painting can develop expression through painting techniques with hand movements, and develop fantasy, imagination, and creation, through the muscles of the hands or fingers, muscle and eye coordination train the ability to combine colors, cultivate feelings towards hand movements, and cultivate feelings of beauty (Astria, Sulasatri, and Magta 2015). In addition to painting using fingers, children also gain experience from mixing and combining colors.

Activities in the finger painting technique can help children develop their fine motor skills because this activity can train hand-eye coordination (Maghfuroh and Chayaning Putri 2018). On the results of the studyMaghfuroh & Chayaning Putri (2018) shows that almost all children have normal fine motor development after being given finger painting. Finger painting is expected to provide convenience to Grade II ADHD students in increasing the focus of Indonesian lessons on writing correctly.

Based on this background, it is necessary to develop finger painting media so that it can still be applied at home. The media plays a role in stimulating attention during the learning process (Nurhidayati 2018). However, learning modules based on finger painting that are specifically designed to meet the needs of children with ADHD, especially improving writing skills, are rare. The last study conductedAola (2016) was only oriented to see the effect of finger painting on increasing the concentration of children with ADHD. Even though learning modules have proven to be effective in helping writing therapy for children with ADHD (Farida 2021). Recent studies conducted by Daniel & Sukamto, (2021) concluded that the use of learning modules aimed at parents of children with special needs can improve the fine motor skills and cognitive abilities of children with special needs. In addition, learning modules can attract the attention and curiosity of students so that they get a learning experience.(Lasmiyati & Treasure 2014; Mukaromah 2018). Therefore, this study is oriented toward developing creative learning media modules for beginning writing skills with the finger painting technique for children with Attention Deficit Hyperactive Disorders (ADHD). This study also aims to describe the development steps and feasibility of the creative module for starting writing with finger painting for children with ADHD in initial writing skills.

It is hoped that the development of a finger painting-based learning module for early writing skills for children with ADHD is expected to help teachers and parents in online learning. In its development, the module content focuses on Indonesian language subjects as subjects that cover students' writing activities in class. Indonesian language subjects are given since they are still in elementary school (SD) because it is hoped that students will be able to master, understand, and be able to implement initial writing skills (Ahmad 2016). It is hoped that the developed media can be an instructional guide for parents and students with ADHD in improving their initial writing skills. In addition, it improves fine motor skills for a more comprehensive treatment of ADHD.
**Method**

The type of research used in this study is research and development (Research and Development/RnD) with model analysis, Design, Development or Production, Implementation or Delivery, and Evaluations (ADDIE) designed by Dick (1996). The following is figure 1 the design of the development procedure carried out.

![Figure 1. The procedure for developing a finger painting-based learning module](image)

The data collection technique used is an assessment instrument used by media and material experts as well as practitioners (teachers) in assessing the feasibility of the product being developed. Furthermore, the results of the assessment in the form of grades and input/suggestions are used to improve the finger painting-based learning module for the beginning writing skills of children with ADHD that are being developed. In table 1. The eligibility criteria for the product used. The module is said to meet the minimum eligibility criteria which are quite feasible with a minimum score of above 2.6.

**Table 1. Product Eligibility Criteria**

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Average Score</th>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X &gt; \bar{x} + 1,8$</td>
<td>$X &gt; 4,2$</td>
<td>Very Worth it</td>
</tr>
<tr>
<td>$\bar{x} + 0,6 , s_{bi} &lt; X \leq \bar{x} + 1,8 , s_{bi}$</td>
<td>$3,4 &lt; X \leq 4,2$</td>
<td>Worthy</td>
</tr>
<tr>
<td>$\bar{x} - 0,6 , s_{bi} &lt; X \leq \bar{x} + 0,6s_{bi}$</td>
<td>$2,6 &lt; X \leq 3,4$</td>
<td>Decent Enough</td>
</tr>
<tr>
<td>$\bar{x} - 1,8 , s_{bi} &lt; X \leq \bar{x} - 0,6s_{bi}$</td>
<td>$1,8 &lt; X \leq 2,6$</td>
<td>Less Eligible</td>
</tr>
<tr>
<td>$X \leq \bar{x} - 1,8 , s_{bi}$</td>
<td>$X \leq 1,8$</td>
<td>Very Inadequate</td>
</tr>
</tbody>
</table>
**Results and Discussion**

The results of the development of this study are a creative module for writing starters with finger painting for children with ADHD and a handbook for learning modules based on finger painting for teachers and parents.

1. **Analysis Stage**

The initial stage in the development of this learning module is the analysis stage by conducting a needs analysis related to the needs of learning modules for initial writing skills. The material analysis was carried out which included curriculum analysis related to Basic Competencies (KD), initial writing indicators, and materials developed. The following table 2 presents the basic competencies used.

<table>
<thead>
<tr>
<th>Basic Competency (BC)</th>
<th>Basic Competency Indicator (BCI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Get to know the text of instructions or directions about health care with the help of a teacher or friend in spoken or written Indonesian which can be filled in with local language vocabulary to help to understand</td>
<td>1.2.1 Shows uppercase and lowercase letters in simple text healthcare</td>
</tr>
<tr>
<td>1.3 Get to know the text of thank you about affection with the help of a teacher or friend in spoken or written Indonesian that can be filled with regional language vocabulary to help to understand</td>
<td>1.3.1 Indicate uppercase and lowercase letters in the text of thank you about affection with the help of the teacher.</td>
</tr>
<tr>
<td></td>
<td>1.3.2 Write simple sentences related to thank you for affection with the help of the teacher.</td>
</tr>
</tbody>
</table>

3 indicators of initial writing are integrated into the creative module.

<table>
<thead>
<tr>
<th>Beginning Writing Ability Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emphasize simple words and sentences</td>
</tr>
<tr>
<td>2. Write words and sentences with the help of dotted lines</td>
</tr>
<tr>
<td>3. Students can copy simple words and sentences</td>
</tr>
</tbody>
</table>

2. **Design Stage**

The design phase begins with designing a product prototype (draft I) which includes cover design, material display design, written instructions, and exercises or tests. The module uses the following module components:

a) Goals with clear formulation
b) There is subject matter packaged in small units to make learning easier to complete
c) Some examples and illustrations support the clarity of learning material
d) There are practice questions and assignments to train students in problem-solving, as well as a response to their level of mastery of the teaching material
e) The problem attached is contextual.
f) The language used is simple and more communicative.
g) There is a summary of the learning material.
h) There are assessment instruments that allow students to self-assess.
i) There is a feedback assessment
j) Some references or references support learning materials and modules
3. Development Stage

After the draft was completed, the development stage continued, namely assembling all the components into a complete learning module to be submitted to expert judgment (material and media experts) to be validated/assessed for feasibility. The results of the learning module assessment are presented in Figures 1 and 2. Judging from the average results of the material expert's assessment of 2.8 or the category is quite feasible and the average result of the media expert's assessment is 3.57 or the feasible category. Thus the module is feasible to implement.

![Figure 1. Average material expert assessment results](image1)

![Figure 2. Average media expert assessment results](image2)

For suggestions and input from experts which include improving material, using color proportions in designs to attract children's focus, the separation between modules, and module guides for teachers and parents. In the development of this learning module initially, the guide to the use of modules and modules was made into one part. The module usage guide contains Core Competencies, Basic Competencies, Indicators, objectives, and instructions for using the Creative Module. Instructions for using this creative module contain 10 points for using the learning module. Apart from media and material experts. The creative module is also assessed by practitioners (teachers). In general, the results of the teacher assessment that have been analyzed have a value of 3.45, or the appropriate category. In table 3, the results of the teacher's response are presented.

![Figure 3. Average teacher response results](image3)
The teacher gives several suggestions for module improvement, as follows:

a) The writing section doesn't need to be repeated up to three times, for example, on one page of writing the word "steering wheel" you don't have to write it several times because children get tired of writing the same word quickly.
b) On each page students simply write uppercase and lowercase letters
c) For the letters that will be used for finger painting, the image will be enlarged again.

4) Implementation Stage

The module was implemented by a class II teacher at SLBN Polewali on 3 students with ADHD. The implementation stage of product trials. An important step that must be taken in development research, at this stage the researcher will implement learning using learning media. The trial of this product was the media trial of the initial writing learning module with finger painting conducted by the teacher. The following figure 5 shows the results of students' training with the finger painting technique.

![Figure 5. The results of the students' practice with finger painting](image)

Observations were made on students when the teacher used the creative module in teaching. The following shows one of the results of student observations in learning in table 4.

Table 4. Observation of the implementation of the creative module

<table>
<thead>
<tr>
<th>Observed Things</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text readability</td>
<td>Correct</td>
</tr>
<tr>
<td>Writing directions</td>
<td>Correct</td>
</tr>
<tr>
<td>Book Position</td>
<td>Correct</td>
</tr>
<tr>
<td>Sitting Position</td>
<td>Sitting position slightly bent</td>
</tr>
<tr>
<td>Focus</td>
<td>Child looks focused</td>
</tr>
</tbody>
</table>

5 Evaluation Stage

At the evaluation stage, a review of the results of observations and discussions with the teacher was carried out regarding the learning process using the creative module. The teacher stated that there was an increase in the duration of the students' focus when writing the beginning with the finger painting technique. Even though at the beginning of learning it was quite difficult to condition students to focus, seeing something new and various colors made them interested. Improved focus can be seen when they observe and their hands touch the finger painting dough. Then the teacher helps them color the upper and lower case letters using their fingers. This process requires patience from the teacher. The teacher also states that the success of learning is supported by improvements to the module by avoiding things that can cause boredom.

Based on the results of the evaluation stage, the creative module is declared eligible and can be used by educators to improve initial writing skills. The following is a picture of the cover for the creative module and the handbook for teachers and parents that have been developed.
The exercises in this product include (1) writing words and sentences using finger printing, (2) practicing writing words and sentences with dotted lines, and (3) practicing writing simple sentences using a pencil. The exercises contained in this module aim to enable students to write words and sentences without making omission errors. In addition, this research product is equipped with work examples that make it easier for students to do the exercises.

The developed creative learning module meets module development standards and meets eligibility in terms of material aspects (content/material, construction instructions for working on questions, and language) and media aspects (graphic feasibility, language, presentation, and content). Input and suggestions from expert judgment have a lot to do with the success of module development. In line with the suggestions Retnawati (2016) that to produce a good product at least a product is assessed by 3 expert judgments. The creative module has been assessed by media and material experts and practitioners.

Development of creative modules for early writing skills in children with Attention Deficit Hyperactive Disorders (ADHD) through stages of analysis, design, development, implementation, and evaluations. Initial findings at the analysis stage are that some of the media used by teachers in schools are not sufficient to support students' writing skills. For example, writing exercises using dotted lines on white paper does not have a significant impact. This is because children with ADHD have difficulty sustaining attention on tasks certain (Nass & Levental 2012). In addition, the media used in learning without elements of play (play therapy) for children with ADHD is less effective in overcoming their attention deficit (Hatningsih 2013). Generally, children with inattention disorders are only able to maintain focus for less than 5 minutes, while children of normal age at the elementary level can focus for at least 15 to 18 minutes. (Chairunnisa and Kemala 2020). This sometimes makes children with ADHD lose writing equipment and do other work such as acting carelessly. (Hatningsih 2013). Thus, the problem of attention is closely related to the learning media in the classroom, then the level of initial writing ability of children with ADHD is the background.

Another finding from this development study at the implementation and evaluation stages is that the duration of attention of ADHD children can be increased in learning activities even though it requires patience from educators. They are interested in something new encountered, unique, engaging visual learning (Bariyah 2018), and physical touch. Based on discussions with teachers, the interest of children with ADHD seen when observing their hands touching the finger painting dough. Then the teacher helps them color upper and lower case letters using their fingers so they get a new learning experience. It is supported by Kaczmarek & Łukasz D. Kaczmarek (2016) who stated that finger painting is an activity that is rarely done by most individuals, and may be considered new and interesting for children. Widia (2007) also supports the findings by first finding that finger painting is an art technique that involves...
global motor movements for children the whole body seems to be involved in making that movement. Apart from being a technique for developing creativity, finger painting is a therapeutic method that is directed at the formation of children according to the level of development of the child's age and character. Finger painting also aims to improve the ability to think and do creatively, as well as develop expression through the medium of painting with hand movements, develop fantasy, imagination, creation, train hand or finger muscles, muscle and eye coordination, train skills in combining colors, foster feelings towards hand movements and cultivate the ability to express aesthetic values by drawing creative works (Kaczmarek & Lukasz D. Kaczmarek 2016).

**Conclusion**

Based on the development of the creative module with the ADDIE development stages, it can be concluded that the creative module with finger painting is appropriate to be used to help the beginning writing skills of children with ADHD based on the results of assessments from media experts and practitioners. Material experts stated that it was quite feasible to use in learning. This research implies that children with ADHD can increase the duration of focus, be interested in something new, and unique, and involve visual learning and physical touch, so teaching materials in schools should fulfill these four things or use play therapy.

Suggestions are shown to teachers and parents to use learning modules in developing early writing skills in children with ADHD because this module has gone through a trial and error-process and has been validated. It is also recommended that teachers use teaching materials of nature play therapy for children with ADHD, unique, involving visual learning and physical touch.

**Confession**

This article is part of the thesis final project of the Special Education study program, at Yogyakarta State University.

**Reference**


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