The Practicality of Developing a Multi-Split Model Based on the Hands-on-Mind Approach as a Reconstruction of Basic Literacy and Character Values

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THE PRACTICALITY OF DEVELOPING A MULTI-SPLIT MODEL BASED ON THE HANDS-ON-MIND APPROACH AS A RECONSTRUCTION OF BASIC LITERACY AND CHARACTER VALUES

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Abstract

West Kalimantan is a province in Indonesia with the longest border with foreign countries. Therefore, education in these areas must be paid close attention to so that students can obtain optimal learning competency results and master basic literacy and character values as catalysts for understanding, awareness, and attitudes toward the pillars of national and state life. This study aims to determine the practicality of developing a multi-split model based on the hands-on-mind approach that can be used to reconstruct basic literacy and character values in the border areas of West Kalimantan and Malaysia during the COVID-19 pandemic. The research method used was research and development (R&D). The source of the data in this study was obtained from the results of field trials; thus, the practicality of developing a multi-split model based on the hands-on-mind approach observed by two teachers could be seen. The results of the practicality analysis showed that (1) the implementation of learning using a multi-split model based on a hands-on-mind approach reached an average score of 3.23 with good criteria, (2) student activities got an average score for each activity of at least 3.16 with good criteria and (3) the obstacles experienced by students were not familiar with the pattern of the learning process using this model; consequently several student activities could not run optimally.

Keywords: Education; Politics; Economics; Finance; Cultural Studies.
A. Introduction

West Kalimantan has the longest border with foreign countries and Indonesia’s gateway to the East Asian Region in the West. Therefore, education in the region must be paid close attention to so that students can obtain optimal learning competency results and master basic literacy and character values as catalysts for understanding, awareness, and attitudes toward the pillars of national and state life.

Based on the results of the initial observations by the proposing team in June 2021, several elementary schools in the locations of the state borders, especially in the Sanggau Regency, West Kalimantan, were still found in the conditions where learning activities were so conventional. Students had not been able to master basic literacy properly. Basic literacy is needed by students to have life skills amid the COVID-19 pandemic and to be able to ward off hoax information about COVID-19. Literacy is the ability to access, understand, and use something appropriately through reading, writing, listening, or speaking activities (Rozelyna, 2023; Budiharto et al., 2018). Another opinion states that literacy is a skill related to reading, writing, and thinking activities that focus on increasing the ability to understand information critically, creatively, and innovatively (Suyono et al., 2017). Literacy is not just reading and writing but includes critical thinking skills utilizing printed, visual, and digital knowledge sources. Education is a crucial factor for every country, including Indonesia, because people believe it to be one of the benchmarks for a country’s development success. The state development in education aims to create quality human resources regarding attitudes, knowledge, and skills (Sari et al., 2021).

In addition, based on the research team’s limited observations, character values in students have not been fully reflected in their behavior when interacting with others. Ideally, character values must be instilled from an early age through their behavior so that later, they can take a role according to their portion as civilians in maintaining sovereignty on the borders of the Republic of Indonesia (Muchtar & Suryani, 2019). Character education should bring students cognitive value recognition, affective appreciation of values, and actual value practice (Mohd Yusoff et al., 2022; Arifin, 2017).
The National Education System Law No. 20 of 2003, Chapter II Article 3 states, “National Education functions to develop capabilities and shape dignified national character and civilization in the framework of educating the nation’s life, aiming at developing the potential of students to become human beings who believe and fear the God Almighty, have a noble character, healthy, knowledgeable, competent, creative, independent, and become democratic and responsible citizens”. Thus, one of the main tasks of educators is to educate the nation’s life by planting and growing the inheritance of life values as a nation with noble ideals based on Pancasila (five principles of Indonesian political philosophy). In this regard, various ways must be implemented to achieve the educational goals, and the expected national character can be accepted and embedded in the students’ mentality.

Various findings on these problems and based on the 2017-2045 National Research Master Plan in the field of education, the research team worked together to find a solution by developing a multi-site model based on a hands-on-mind approach. This model is developed based on (1) Behavioristic theory, which prioritizes changes in behavior due to stimulus and response. Behavioristic theory is a learning theory that emphasizes changes in behavior resulting from the interaction between stimulus and response. Connectionism is the earliest family of behavioral theory. According to this theory, human behavior is nothing but a stimulus-response relationship. Those who master the stimulus response as much as possible are smart and successful in learning. The formation of stimulus-response relationships is done through repetition.

According to Desmita (2009), behavioristic learning theory is a theory of learning to understand human behavior that uses an objective, mechanistic, and materialistic approach so that changes in a person’s behavior can be carried out through conditioning efforts; (2) The humanistic theory emphasizes that students can understand their environment and themselves so that they can achieve self-actualization. The definition of humanistic learning theory is physical and spiritual activities in order to maximize the development process. While narrowly, learning is defined as
an effort to master the treasures of knowledge as a series of overall personality development. Physical growth does not provide behavioral development. Changes or developments are only caused by learning processes, such as changes in habits or habits and various abilities in terms of knowledge, attitudes, and skills; and (3) the hands-on-mind approach is the point of view of the learning process involving psychomotor and thinking simultaneously.

The Four-D development model is used to see the results of validating language, materials, and media for teacher practicality tests, and the teacher’s response is very practical (Anggela et al., 2021). Developing practicality based on critical thinking skills is related to the practicality of developing student worksheets (Balela et al., 2021). The development of teaching modules based on the developed project tested on teachers has an excellent response to the designs that have been prepared (Kamid et al., 2020).

This research is expected to result in the development of a learning model, the Multiple-Split Model, based on the hands-on-mind approach, which has the practicality of reconstructing basic literacy and character values of students in the border areas of West Kalimantan and Malaysia during the COVID-19 pandemic through patterns of application to the learning process. The level of practicality of developing learning media is used to support Adobe Animate learning (Saniriati et al., 2021).

A Multi-Split model based on the hands-on-mind approach is a learning model developed by the research team. The learning model is a plan or pattern to guide classroom learning or learning tutorials (Astuti, 2021). The development of a learning model refers to the curriculum being used (Widyaningsih et al., 2019). Learning media contributes to the teaching and learning process, helping teachers convey lessons and providing additional value in learning. Learning by using media in the teaching and learning process has two critical roles, as follows: (1) media as a teaching aid or referred to as dependent media because of its position here as an aid (effectiveness), (2) media as a learning resource that is used alone by the participants independently (Irawan & Hakim, 2021).
The specific objective of this model development research is to describe the practicality of the results of the development of a Multi-Split model based on a hands-on-mind approach that can be used to reconstruct basic literacy and character values on the border areas of West Kalimantan and Malaysia during the COVID-19 pandemic and can be implemented immediately. It is disseminated widely; thus, it can be practiced in teaching and learning activities.

B. Method

This study used research and development (R&D) as the research design. Borg & Gall in Nusa (2012) explained that R&D is an industry-based development model in which research findings are used to design new products and procedures, which are then systematically tested in the field, evaluated, and refined until they meet specific criteria, namely effectiveness and quality. Sariani et al. (2017) and Sugiyono (2010) stated that development research is research used to produce specific products and test the effectiveness of these products.

According to Sudjana (Kosassy, 2019), conducting educational product development is necessary to develop models that fit the education system. In developing the learning model, Sudjana provides three development models: 1) the Dick-Carey model, 2) the Four-D model, and 3) the Kemp model. The development model used for this research is the Four-D development model (Anggela et al., 2021; Diana & Jaya, 2021; Erni & Farihah, 2021; Nizaar et al., 2021; Samawati & Rahayu, 2021). The researcher also used the methods to measure the validity and practicality of the methods used in their research.

These models consist of four stages of development: define, design, develop, and disseminate or adapted into a 4-P model, namely defining, designing, developing, and disseminating. The four stages can be explained as follows: a. Defining is collecting necessary information (needs assessment) to prepare a draft or initial model development product through literature study. b. Designing is designing a draft or initial product
of the developed model. c. Developing is validating and developing models; hence, valid and reliable products are produced and ready to be implemented in learning.

In the Developing stage carried out in this study, it was only expert validity (content) and practitioner validity (items). Content and item validity are carried out with the objectives of 1) to ensure that the developed model aligns with the mandated content and construct and 2) to identify and formulate weaknesses in the product design development model. Thus, it can be perfected based on the results obtained. d. Disseminating uses tools that have been developed on a broader scale, for example, in other classes or elementary schools on the border areas of West Kalimantan. It aims to test the effectiveness of the model that has been developed.

The research on the development of this model used descriptive data analysis. Descriptive data analysis is a statistical analysis used to describe or analyze a research result but not for generalization/inference (Koyan, 2012). Descriptive statistics are related to recording, compiling, presenting, and summarizing by describing data as results from observations of events or phenomena. Descriptive data analysis consists of two, namely qualitative descriptive data analysis and quantitative descriptive data analysis.

C. Result and Discussion
1. Result

After designing the hands-on-mind approach based on the Multi-Split learning model, going through the validation stages, and obtaining valid results, the research team conducted product trials in schools to determine the practicality of using the learning model. The product trial results data are as follows:

The target school used for the product trial was SDS Sanggau Cathedral Parish. This product trial was intended to analyze the practicality of implementing the learning model of the Multi-Split Model based on the hands-on-mind approach. Practicality was analyzed based on (1) the
implementation of learning using the Multi Split Model based on Hands on-mind on Approach, (2) student activities, and (3) the obstacles experienced by teachers and students in implementing the learning model of the Multi-Split Model based on the Hands On-Mind On Approach.

Almubarak et al. (2021) used the R&D (Research & Development) method to measure validity and practicality in their research, where validity and practicality are a significant part of product development research.

a. Implementation of Learning using the learning model of Multi-Split Model based on the hands-on-mind approach on the Product Trial

The data on the practicality of applying the learning model of the Multi-Split Model based on the hands-on-mind approach in section (1) implementation of learning using the Multi-Split model based on the hands-on-mind approach according to the results of product trials are presented as follows:

Table 1. The data on results of product trial implementation of learning using the multi split model

<table>
<thead>
<tr>
<th>No.</th>
<th>Phase</th>
<th>Step</th>
<th>Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Submission of learning objectives and stimulation</td>
<td>The teacher conveys the learning objectives</td>
<td>4 4 4 Very good 100 Reliable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 3 3 Good 100 Reliable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The teacher conveyed the learning activity plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The teacher provided stimulation by asking initial questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The teacher gave suggestions for reading with the aim of pleasure (voluntary reading and choosing what to read. Thus, the cultivation of literacy in students</td>
<td>3 3 3 Good 100 Reliable</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>No.</th>
<th>Phase</th>
<th>Meeting</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>O1</td>
</tr>
<tr>
<td>2.</td>
<td>Integrating basic literacy (read-write literacy/scientific literacy/numeric literacy/digital literacy/financial literacy/cultural-citizenship literacy) on learning topics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The teacher presented information on learning topics integrated with basic literacy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The teacher guided students to read learning materials for instructional purposes</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The teacher gave activity sheets to each group of students with different concepts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The teacher gave directions for the success of the activity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The teacher guided students to work on activity sheets and ensured that each student was involved in the activity process (hands-on-mind approach)</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Presentation and discussion</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The teacher guided each group to present their work and be responded to by other groups</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Strengthening learning integrated with basic literacy (read-written literacy/scientific literacy/numeric literacy)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The teacher gave reinforcement for the material that had been conveyed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The teacher guided students to conclude the activities that had been conducted</td>
<td></td>
</tr>
</tbody>
</table>
The Practicality of Developing a Multi-Split Model Based on the Hands-on-Mind Approach

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Table 1 shows that all learning stages at the first meeting were carried out 100% with an average score of 3.23 with good criteria. The reliability mode of all implementation steps was reliable. It shows that the instrument is reliable.

b. Student Activities during the Learning Process using the learning model of Multi-Split Model based on the Hands-on-Mind on Approach on the Product Trial

The practical data of the application of the learning model of the Multi-Split Model based on the hands-on-mind approach in part (2) student activities during the learning process using the learning model of Multi-Split Model based on the hands-on-mind approach according to the results of product trials are presented as follows.

Table 2. The data of product trial results of student activity during the learning process using the learning model of multi-split
2. Integrating basic literacy (read-write literacy/scientific literacy/numeric literacy/digital literacy/financial literacy/cultural-citizenship literacy) on learning topics

- Students paid attention to learning topic information integrated with basic literacy
- Students read learning materials for instructional purposes
- Students made groups
- Students received activity sheets
- Students paid attention to the direction of the success of the activity
- Students worked on activity sheets (hands-on/mind on)

3. Presentation and discussion

- Each group of students made a presentation in turn and responded to the results of the presentation

4. Strengthening learning integrated with basic literacy (read-written literacy/scientific literacy/numeric literacy/digital literacy/financial literacy/cultural-citizenship literacy) and quizzes

- Students listened to reinforcement material
- Students concluded the activities that had been done
- Students took quizzes
- Students receive awards

<table>
<thead>
<tr>
<th>No.</th>
<th>Phase</th>
<th>Step</th>
<th>Meeting</th>
<th>O1</th>
<th>O2</th>
<th>Ave</th>
<th>Crite</th>
<th>R (%)</th>
<th>Reliability</th>
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<tbody>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>Good</td>
<td>100</td>
<td>Reliable</td>
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<td>3</td>
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<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>Very</td>
<td>100</td>
<td>Reliable</td>
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<tr>
<td></td>
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<td>3</td>
<td>3</td>
<td>3</td>
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<td>3</td>
<td>3</td>
<td>3</td>
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<td>Reliable</td>
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<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>Very</td>
<td>100</td>
<td>Reliable</td>
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<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Good</td>
<td>100</td>
<td>Reliable</td>
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<td>3</td>
<td>2</td>
<td>2.5</td>
<td>Good</td>
<td>100</td>
<td>Reliable</td>
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<td>3</td>
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<td>Good</td>
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<td>Reliable</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>Good</td>
<td>100</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Amount 48 47 47.5 Average 3.2 3.13 3.16 Total Value of Student Activity 79.16%
In Table 2, it appeared that student activities using the learning model of the Multi-Split Model based on the Hands on-Mind on Approach got an average score for each activity of at least 3.16 with good criteria. The activity instrument was declared reliable because the reliability mode of all student activities was reliable. It shows that the student activity instrument can be used for further observations. From the assessment results of the two observers, there were still observers who rated 2 in the listening and paying attention steps to the planned learning activities and answered questions. The total value of student activities carried out was 79.16%.

c. Constraints Experienced by Teachers and Students in Implementing the Multi-Split Model Based on Hands-on-mind Approach on the Product Trials

Based on the results of observations and interviews with the model teacher, observers, and students at Parish Cathedral Private Elementary School (SDS) in product trials, several obstacles were experienced when implementing the Multi-Split learning model based on the hands-on-mind approach. At first, the teacher was not used to using this learning model. Thus, some steps were not maximally applied, and students were also not familiar with the pattern of the learning process using this model. As a result, several student activities could not run optimally. To overcome this, the model teacher and the research team tried to discuss again to ensure that every step of the learning model of the Multi-Split Model based on the hands-on-mind approach could be applied properly. Thus, until the third meeting of the product trials, the learning model could be applied very well to the learning process in the classroom.

The teacher of Cathedral Parish Private Elementary School (SDS) also said that using references in the form of a book entitled “Integrated Basic Literacy Learning Outcomes of the Independent Curriculum” and the platform helped complete the learning process. Hence, there is a pattern of continuity to teach basic literacy and familiarize students’ character values during teaching and learning activities.
2. Discussion

The target school used for the product trial was Sanggau Cathedral Parish Private Elementary School (SDS). This product trial was intended to analyze the practicality of implementing the learning model of the Multi-Split Model based on the hands-on-mind approach. Practicality is analyzed based on the following:

a. The implementation of learning using the learning Multi-Split Model based on the hands-on-mind approach on the product trial showed that all stages of learning at the first meeting were carried out 100% with an average score of 3.23 with good criteria. The reliability mode of all implementation steps was reliable. It shows that the instrument is reliable.

b. Student activities during the learning process using the learning Multi-Split Model based on the hands-on-mind approach on the product trials appeared that student activities using the learning model of Multi-Split Model based on Hands On-Mind On Approach got an average score for each minimum activity of 3.16 with good criteria. The activity instrument was declared reliable because the reliability mode of all student activities was reliable. It shows that the student activity instrument can be used for further observations. From the assessment results of the two observers, there were still observers who rated 2 in listening and paying attention to the planned learning activities and answering questions. The total value of student activities carried out was 79.16%.

c. Product experiments were developed through observations and interviews with model teachers, observers, and students at Cathedral Parish S.D.S. who were still unfamiliar with the learning methods used, including students who were also inexperienced with the learning process pattern of the Multi-Split Model based on Hands-On-Mind approach, resulting in missed and suboptimal phases. All phases can be successfully executed in the succeeding trial, allowing pupils to absorb the information thoroughly.
The teacher at Cathedral Parish S.D.S. claimed that the reference book used was titled Integrated Basic Literacy, Independent Curriculum Learning Achievements and that the platform was helpful in the learning process so that the pattern taught was continuous concerning applied character education and essential literacy learning.

The teacher of Cathedral Parish Private Elementary School (SDS) also said that using references in the form of a book entitled ‘Integrated Basic Literacy Learning Outcomes of the Independent Curriculum’ and the platform helped complete the learning process. Hence, there is a pattern of continuity to teach basic literacy and familiarize students’ character values during teaching and learning activities.

D. Conclusion

The Multi-Split Model, based on the hands-on-mind approach, is a learning model that integrates repeated basic literacy in several phases of the learning model. Then, this learning model emphasizes the process of acting and thinking simultaneously, leading to a more robust learning foundation. This learning model has four phases, namely: (1) Submission of learning objectives and stimulation; (2) Integrate basic literacy (read-write literacy/ scientific literacy/ numeric literacy/ digital literacy/ financial literacy/ cultural-citizenship literacy) on learning topics; (3) Presentations and discussions and (4) Strengthening learning integrated with basic literacy (read-written literacy/scientific literacy/numeric literacy/ digital literacy/ financial literacy/ cultural-citizenship literacy) and quizzes.

Using the learning model of the Multi-Split Model based on a hands-on-mind approach to reconstruct basic literacy and character values on the border areas of West Kalimantan and Malaysia during the COVID-19 pandemic is practical. It is based on the data of (a) the implementation of learning using the Multi-Split model based on the Hands On-Mind On Approach, showed the results that all stages of learning were carried out 100% with excellent criteria (2) the frequency of student activity during
the learning process using the Multi-Split model based on the Hands on-Mind on Approach continued to increase and (3) the obstacles experienced by teachers and students in implementing the learning model of Multi-Split Model based on the Hands on-Mind on Approach were only because of not being used to using this model. After going through the process of using the model, the frequency of teacher and student activities was getting better.

Bibliography


