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Using Smart Apron Learning Media in Teaching Early Literacy Skills

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ABSTRACT: Literacy is one area of academic skills that can help children learn to read more easily and can influence skills in other academic areas. This study aims to describe the use of smart aprons learning media in teaching early literacy skills in schools that already use it in the Greater Jakarta area. This qualitative descriptive research was carried out in August 2022 with 11 teachers as respondents. Collecting data using observation techniques, interviews, and documentation. The validity of the data is obtained through data triangulation. The results of the study show that the use of smart aprons in literacy teaching is implemented in planning, opening learning activities, explaining activities, and closing learning activities, and is used in reflecting on learning about literacy. Besides being used for teaching literacy, smart aprons are also used to stimulate other aspects of development, such as children's cognitive and gross motor skills. Smart aprons are easy to use, time efficient, and flexible and make children enthusiastic about learning, encourage children's motivation, encourage teacher creativity, and children know something that was not previously known and encourage teacher creativity.

Keywords: smart apron media, literacy skills, early childhood

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1 INTRODUCTION

Early reading skill development is essential for children's learning and future academic success. Early childhood research has highlighted a few early literacy skill groups. Oral language comprehension, print awareness, and phonological skills are the three main components of the early literacy foundational skills (Rohde, 2015). According to (Zettler-Greeley et al., 2018), teacher-led literacy teaching is typically followed by drill-and-practice exercises in kindergarten to address the development of early reading abilities. These behaviors greatly aid in the development of children's literacy skills, according to several longitudinal studies (Piasta et al., 2010).

There are differences of opinion about how such instruction should be structured in early childhood education. Other studies have suggested that in these situations, teachers should not rely on overly regulated conventional learning approaches because such approaches do not always guarantee long-term success (Bodrova, 2008). Instead, instructional design methods and media that accommodate the child's natural learning style should be used, along with well-thought-out systematic guidance for the development of early reading skills. The literacy development process takes place and starts early (Banerjee et al., 2016). Therefore, early childhood education must cover the basics. According to Missall et al., (2008), early literacy development should concentrate on abilities that come before more traditional types of reading and writing.

However, literacy skills in Indonesia still need to be improved because these abilities are still relatively low compared to other countries. This is by data obtained from the 2018 PISA (Program for International Student Assessment) which surveyed 399 educational units with 12,098 students. The survey results show that students' reading skills in Indonesia are ranked in the bottom 10 of 79 countries. As for the percentage, only 25% of students in Indonesia can read at least one (puslitjakdikbud.kemdikbud.go.id/, 2021). Other facts also reveal that based on the results of the PISA survey in previous years still did not show satisfactory results, namely data obtained from the Ministry of Education and Culture stated that during the 2012-2015 period, the PISA score on reading ability only rose 1 point from a score of 396 to 397 and in 2019 Indonesia's reading score was ranked 72 out of 77 countries. This data confirms the need for improvements in literacy teaching in the hope that children's literacy skills can increase. Based on the results of initial observations made in August 2022, during the study in groups A and B in the TK X Jakarta area, it was found that teachers teach literacy using paper and pencil without paying attention to learning principles and the characteristics and needs of each child. So that some children have not completed the activities given by the teacher in writing one of the consonant letters in the notebook. This problem was supported by initial interviews with teachers who said that because of demands parents and schools had limited learning media.

Based on the problems gap in the learning early literacy media used is limited, while learning media is one of the optimal determining factors in achieving children's learning abilities. Learning media can be used to convey literacy teaching as a whole and provide

reinforcement and motivation. Given the many benefits of using instructional media, of course, this needs to be considered by experts in early childhood education, teachers, and students who are involved in the world of early childhood education. On this basis, a smart apron learning media was created which was initiated by students at Al Azhar Indonesia University and has a copyright. So, in this study, the aim is to describe the Utilization of Smart Aprons in Early Literacy Learning.

2 THEORETICAL STUDY

2.1 *Early Literacy Skills*

Early reading experiences in the home have an impact on children's development of fundamental abilities that are crucial indicators of future academic achievement. Children's emergent literacy skills, such as oral language, print knowledge, and phonological awareness, which predict early reading are correlated with exposure to language and print in the home literacy environment (Quinn et al., 2015). Additionally, children's early oral language and coding skills, as well as their earlier elementary reading ability, predict their reading abilities and comprehension in later elementary school (Suggate et al., 2018).

Early literacy skills, also known as emergent literacy abilities, are those that are innately connected to the development of reading yet exist before the reading ability itself (Lonigan & Shanahan, 2010). Early literacy skills include critical building blocks for word reading, such as letter knowledge (the ability to identify and name letters), knowledge of letter-sound correspondences (the ability to match the sound /m/ with the letter "m"), phonemic awareness (the ability to separate words like "mat" into "m," "a," and "t"), concepts about print (the ability to recognize reading conventions, text directionality, and book structure), and handwriting (writing letters and words). When combined, these abilities give kids the tools they need to learn how to read, enabling them to interpret information and find their way around books and texts (Suggate et al., 2018).

According to Wilcox et al., (2020), early literacy refers to the foundational abilities needed for appropriate reading acquisition during the preschool years. Its breadth and application are consistent with the abilities children learn throughout early childhood education, or between the ages of 0 and 6. According to research, these abilities rank among the top factors in predicting whether a kid is ready to start reading or learn how to read (Pears et al., 2016). Several sub-skills make up the framework of early literacy. First, it is commonly stressed when vocabulary knowledge is investigated that there is a substantial association between children's early vocabulary knowledge and their future reading comprehension skills (Inoue et al., 2018). Although children are successful in the grapheme-to-phoneme conversion process during the word decoding stage, if they cannot find a pairing in their vocabulary for the words they decode, they will not reach the message to be given in the written text and as a result, the reading task will not go beyond pronunciation. There was a strong relationship between the vocabulary children had at the age of 3 and their comprehension skills at the end of the 3rd grade.

Phonological awareness (PA) is another early literacy sub-skill that receives the greatest attention and research (Landerl et al., 2019). According to Pfost (2015), PA is the ability to alter the phonological parts of spoken phrases. Looking at its scope, the process moves from identifying phonemes that make up words through segmentation and blending to more conscious manipulation (from identification through syllable awareness, and phoneme manipulation) in the oral language (Fricke et al., 2016). It is widely acknowledged that PA is the best indicator of learning to read, particularly for the decoding stage, and that it provides a strong foundation for matching the phonological representations of spoken language with the orthographic representations of that language.

2.2 *Smart Apron Learning Media for Teaching Early Literacy*

Media literacy was first defined as the ability of a citizen to access, analyze, and produce information for specific outcomes. This definition originates from the tradition of Media Education. This definition stresses its critical character of it and outlines the abilities needed to access messages, understand them critically, and actively employ a range of tools and formats to create unique messages. According to Buckingham (2019) developing a critical understanding in this field entails becoming knowledgeable about the following topics, such as the audiovisual languages that the various media use, how the media represent reality, the relationship between fact and fiction in the media, the processes used in the creation of media messages; and the interaction between the media and audiences.

Smart apron learning media can be used with different themes, there are sufficient pockets to store various teaching equipment, and supporting cards which were made in large and attractive sizes. Media smart aprons have been used in several schools. Smart aprons as learning media have the principles of being easy to use, safe materials for children, time efficient, and flexible. This is also illustrated by the teacher's description which states that smart aprons have materials that are easy to use, easy to fold, the size appropriate (not too big or too small), and saves time because the teacher does not go back and forth to take learning equipment (all equipment can be stored in apron pockets).) as well as being flexible, namely encouraging the teacher's creativity to make finger puppets so that they can be used to develop various aspects of child development and can be used as learning media repeatedly with different themes and sub-themes.

3 METHOD

The method of this research was a qualitative approach by utilizing three kinds of data collection, such as observation, interview, and documentation (Sugiyono, 2008). This study involved 11 teachers in Jakarta who were already using smart aprons when learning at school as the participants of this research. The procedure goes through the planning stages by mapping schools that already use smart aprons.

Stages of carrying out research using observation, namely researchers observing the use of smart aprons in a class by filling in the indicators in the observation sheet, namely: learning activities, teacher skills, children's activities, and the use of smart aprons. Second, in the interview instrument, the researcher asked questions related to the use of smart aprons for teaching literacy and evaluation as material for developing smart aprons for resource persons. The final instrument is the documentation of the use of smart aprons for teaching literacy. Based on these data sources, data triangulation was carried out to get an overview of the smart apron as a whole and find out the advantages and disadvantages of smart apron media. The stages of analysis use reduction, display, verification, and data triangulation.

4 RESULT AND DISCUSSION

4.1 *Results*

4.1.1 *Preliminary Data*

Activities on the use of smart aprons in teaching literacy were carried out in several schools in South Jakarta, that were already using them. Smart aprons as a learning medium in teaching literacy are applied by teachers in planning, opening, and closing activities and reflecting on learning. Respondents in this study were 11 teachers with different teaching experiences. In Figure 1, around 36.4% of teachers have taught for 0-3 years and around 27.3% of teachers have taught for more than 10 years.

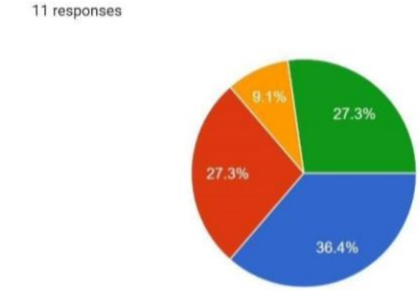

Figure 1 Respondents' teaching duration

Based on the results of observations in making plans regarding literacy learning using smart aprons the teacher makes plans related to KD 4.11 showing expressive language skills, KD 3.12 getting to know literacy through play activities, KD 4.12 showing early literacy in various forms of work and KD 4.14 showing the need for self-interest by appropriate. This shows that the smart apron is integrated with the curriculum used.

4.1.2 *The Use of Smart Aprons in Teaching Literacy*

This finding was obtained through interviews conducted with 11 respondents who had used smart aprons in teaching literacy. The interview process was carried out in various ways, namely via video calls on the WhatsApp application and Zoom meetings. The questions posed include 3 components, namely: 1) The ease and difficulty of using smart

aprons in teaching literacy; 2) the Advantages of smart aprons; 3) the Smart apron development proposal. The results of the interviews were then written down in the form of short transcripts and processed by juxtaposing the similarities in the answers of each informant to then conclude.

4.1.3 *The Ease and Difficulty of Using Smart Aprons in Teaching Literacy Skills*

This smart apron is designed with many pockets accompanied by attractive cards to make it easier for teachers to teach literacy and the hope is to save teachers time in preparing learning media. Based on the results of the interviews, each teacher thought that these smart aprons were easy to use and there were no difficulties in using smart aprons in teaching literacy.

> *"Smart aprons are very easy to use and there are various kinds of pockets with various themes and motivate children to follow the lesson until it's finished."*
>
> *"Easy to use, easy to fold, and saves time because all the media and ATK that will be used are available in the smart apron pockets."*
>
> *"The smart apron is very easy to use, easy to fold and the size is standard (neither too small nor too big)".*
>
> *"There are differences in learning activities when using smart aprons and before using them, namely after using them, it becomes easier and not much time is wasted.*
>
> *"Smart aprons are very helpful in teaching children because they cover all aspects and there is an introduction to the alphabet to teach literacy. A smart apron has no difficulties in use, on the contrary, with a standard size, it is easy to fold, and some pockets can be used to store other class objects.*
>
> *"The children were very excited and looked focused on what was being taught. There are no difficulties in using smart aprons, everything can be used easily and saves time.*
>
> *"The users of smart aprons are easy to use, and children are more interested in and understand the topics given."*

4.2.2 Advantages of Smart Aprons

A smart apron that was designed easy to use and saves teachers time in preparing learning media also has advantages such as being used to stimulate children's fine motor skills and other aspects of development. This advantage is reflected in the answers of the respondents.

> "*Excellence This smart apron has its uniqueness that makes children enthusiastic about learning, feel happy, and makes it easy for children to understand literacy lessons provided by the teacher.*
>
> *"Smart aprons have the advantage that they are also easy to add to other sets by following the existing pattern, such as adding a solar system theme set to introduce children to celestial objects, so that smart aprons can be used for another teaching."*
>
> *"Smart aprons are integrated with learning activities in the 2013 curriculum with sets of themes that support and uniquely there is a Jakarta theme so that children who previously did not know about traditional Jakarta food now know. Apart from that, this smart apron can also be used for cooking lessons, watering, and storing some ATK".*

"Besides being used for teaching literacy, this smart apron can also be used for finger puppets and stimulates children's sense of touch.

4.1.4 *Smart Apron Development Proposal*

As an evaluation material for the development of smart aprons in adding card sets to prices, this was also suggested by the respondents. The respondents' suggestions are reflected in the respondents' answers.

"In the development of smart aprons to be able to modify cards and add other games".

"It's a shame because the number of aprons in the class is limited because the school can't afford to buy many, causing the children to fight over each other, so it is hoped that the price will be more affordable".

"The proposed development of smart aprons can be added to sets for other learning activities and more can be produced at an economical price".

In addition to the results of these interviews, in Figure 2 respondents determine the appropriate price range for smart aprons.

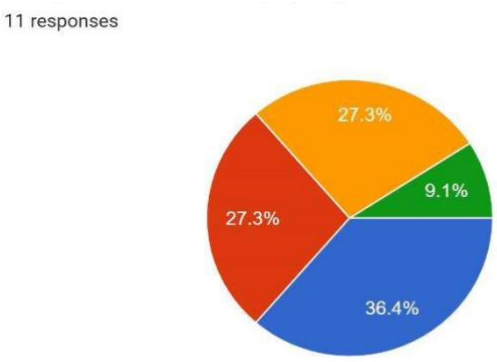

Figure 2 Price range of smart aprons

4.2 *Discussion*

Based on preliminary data, the use of smart aprons as a learning medium in teaching literacy is applied by teachers in planning, opening learning activities, explaining activities, and closing learning activities and is used in reflecting on learning about literacy. For young children to acquire early literacy skills, it is very important to maintain their interest and enthusiasm during literacy-related activities (Baroody & Diamond, 2016). Therefore, the effectiveness of the intervention on students' motivation and interest should be examined in further research. The results of the current research show that structured literacy learning activities and the use of instructional media significantly improve the development of basic early reading skills. As such, the strategy offers a solid foundation for future progress.

Following this understanding, the teacher should pay attention to the basic competencies that must be achieved by children. In making plans regarding literacy learning using smart aprons the teacher mentioned that smart apron media was integrated

with the 2013 curriculum and related to KD 4.11 showing expressive language skills, KD 3.12 getting to know literacy through play activities, KD 4.12 showing early literacy in various forms of work and KD 4.14 express self-interest needs appropriately. In addition, smart aprons as learning media used in teaching literacy raise children's motivation, children become more enthusiastic about learning, children become more focused, children know something that was not previously known, and children understand literacy what the teacher taught.

The smart apron is designed for literacy teaching by providing various cards and various themes. Smart aprons in teaching literacy can help teachers to increase vocabulary and introduce letters to children. Based on the initial data findings and the teacher's description, it is confirmed that this smart apron can be used to stimulate other developments, such as children's cognitive and gross motor skills. In addition, smart aprons also encourage teacher creativity in creating other content, such as finger puppets, making smart aprons a medium for watering and cooking during role-play activities, and teachers developing smart aprons by adding a set of solar system themes to introduce celestial objects and make geometric patterns in learning to recognize patterns.

Smart aprons as learning media have the principles of being easy to use, safe materials for children, time efficient, and flexible. This is also illustrated by the teacher's description which states that smart aprons have materials that are easy to use, easy to fold, the size appropriate (not too big or too small), and saves time because the teacher does not go back and forth to take learning equipment (all equipment can be stored in apron pockets) as well as being flexible, namely encouraging the teacher's creativity to make finger puppets so that they can be used to develop various aspects of child development and can be used as learning media repeatedly with different themes and sub-themes. Based on initial data and confirmation with respondents, it was found that the price range for smart aprons was 36.4% answering 100 thousand - 125 thousand, 27.3% answering 125 thousand - 150 thousand, 27.3% answering 150 thousand - 200 thousand, and 9 Another .1% answered 250 thousand. In determining the price, respondents also suggested that these smart aprons could be sold at economical prices and added suggestions that more cards could be added to these smart aprons.

5 CONCLUSION

The use of smart aprons in teaching literacy is implemented in planning, opening learning activities, explaining activities, and closing learning activities and is used in reflecting on learning about literacy. Apart from being used for teaching literacy, smart aprons are also used to stimulate other aspects of development, such as the cognitive and fine motor skills of children. Smart aprons are easy to use, time efficient, and flexible and make children enthusiastic about learning, encourage children's motivation, encourage teacher creativity, and children know something that was not previously known and encourage teacher creativity. The smart apron can be expanded by adding other sets, adding other media, and games and can be sold at an economical price.

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