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Use of Digital Scracth Media to Improve Beginning Reading Skill in Lower Class Primary Schools

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Abstract

There are several problems in reading. Based on findings in the field in several elementary schools, it turns out that the learning methods created by teachers in teaching reading have not been able to encourage children to want to read. This is because the method of learning to read is less interesting in reading so that children have trouble in reading. This research is qualitative research, namely research to describe the problem and research focus. This research aims to determine the use of students' use of the Digital Scratch media learning model in improving beginning reading skills in lower grades. Meanwhile, the data collection technique is triangulated as a data collection technique that combines various existing data collection techniques and data sources, namely through interviews, observation, and documentation so that the answers to problems are clear and detailed. The sample in this research were students in class I and II (low class). Based on the research results, it was concluded that the Scratch digital media learning model can reach the initial reading proficiency level from the initial reading level to the initial reading proficiency level.

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INTRODUCTION *Times New Roman 12pt Bold, Space 1,15, Justify*

Learning to read in class I is the initial stage of learning to read which is often called beginning reading. Many children are not interested in learning to read so they have trouble in beginning reading because the reading learning method is less interesting. Based on the results of observations and interviews in several elementary schools in West Bandung, one of the reasons why learning to read is less interesting is because the reading learning method is boring. Children who struggle when learning to read are less likely to read for pleasure later in life compared to children who ease into reading quickly (Monyka, at.al, 2022). Other opinion are Primary school children engage in a wide range of reading activities, yet we lack insights into why children choose to read different text types. Furthermore, recent studies of reading motivation have been

dominated by quantitative research; however, qualitative research is necessary to ensure that children's voices are represented when we study their motivations to read (McGeown.S. at.al, 2020).

The results of initial observations in several schools around West Bandung appear to be that there are still students in grades I and II of elementary school who have problems in learning to read at the beginning. Then, based on the results of these observations, we obtained information that there were still many class I students who had not completed their initial reading. There are 43% of students who have not met the minimum completion criteria (KKM). Furthermore, world research results show that the 2019 Massachusetts Grade 4 National Assessment of Educational Progress (NAEP) reading results show that almost a quarter of students scored below basic. Only 45% of students scored proficient or higher on the reading assessment. Additionally, 2019 scores show a decrease in the percentage of students reading at a basic, proficient or higher level. Coupled with real and consistent academic achievement gaps for students from low-income households, students of color, and other historically disadvantaged student groups, the Massachusetts Department of Elementary and Secondary Education (DESE) prioritizes increasing early literacy proficiency as a foundational element of educational success in later. DESE (2022) believes that current literacy teaching practices are not aligned with evidence-based practices and a lack of alignment may be contributing to the current decline in literacy skills. Based on the results of research observations in several elementary schools around West Bandung, there are still a number of teachers who teach in classes I and II who teach reading lessons which are still classical, so one of the reasons why learning reading is less interesting is because the reading learning method is boring for children. This is in accordance with research (Putri, 2022) which states that there is still a lack of use of letter recognition media in initial reading learning in elementary schools as well as the use of homeroom teachers' less enjoyable learning models. This is where reading skills are very important and need attention to be taught to children. One way to develop learning media that can improve students' understanding in beginning reading is by developing interesting media. One of the easiest digital media to use to improve reading skills is Scratch. Because Scratch is designed to be fun, exciting, educational, and easy to learn. Learning computer programming can be challenging for primary school students due to its abstract concepts. While teachers seek effective ways to introduce such concepts, the application of learning objects (LOs) can potentially reduce the effort of creating new material from and allows teachers to adapt LOs to students' needs. The aim to explore the quality of five Scratch-based LOs created to facilitate teaching and learning programming in primary education. Based on case study collecting data from 25 in-service teachers and 91 primary school students, who, using the LORI instrument, evaluated Scratch-based LOs created in real learning contexts. The results showed that participants assessed the LOs' quality positively, highlighted their learning effectiveness, pleasant design, and increase in student motivation (Topali, 2021).

So this digital scracth media development model can be useful and support improving reading skills. This is in accordance with the results of (Andi, 2019) that the Scratch application is very good for use in learning for fourth grade elementary school students (Andi, 2019) . Because Scratch can be used to create simple, interactive stories, games, art, simulators, animations and images that can be equipped with their own sound. So Scratch is interesting because it is an easy program that children can do by simply sliding blocks from the Block Palette and then combining

them into other blocks like a jigsaw puzzle.All of the explanation above is the author's background for conducting research with the title "Use of the Scratch Digital Media Learning Model in Improving Beginning Reading Ability in Lower Grade Elementary Schools at SD Global Nusantara Padalarang".

METHOD

This research method uses a qualitative approach to describe the problem and research focus. Qualitative methods are social research steps to obtain descriptive data in the form of words and images. This is in accordance with what Lexy J. Moleong stated that the data collected in qualitative research is in the form of words, images, and not numbers. A qualitative research approach is an approach that does not use statistical work, but is based on qualitative evidence. In another article, it is stated that the qualitative approach is an approach that is based on field realities and what is experienced by respondents and finally the theoretical reference is sought. A qualitative approach is research that displays assessment procedures that produce descriptive data in the form of written or spoken words from people and observed behavior. Researchers interpret and explain data obtained from interviews, observations and documentation so that the answers to problems are clear and detailed. The choice of a qualitative research approach was carried out as a basis for specifying research subjects and to obtain in-depth information about social problems. The method used to collect data is the analytical descriptive method which is designed to obtain information. The descriptive-qualitative research method is focused on problems based on facts carried out by observation, interviews and studying documents. This method was chosen as one of the writing methods in order to obtain an overview in the field about the use of digital scracth media learning models in improving initial reading skills in lower grade elementary schools at SD Global Nusantara Padalarang.

The data sources in this research consist of primary data and secondary data. Data collection can use primary and secondary sources. Primary sources are data sources that directly provide data to data collectors, and secondary sources are indirect sources that provide data to data collectors. The data source collection technique used was purposive sampling. Purposive sampling is a technique for sampling data sources based on certain considerations. The particular consideration in question is that the person we choose as a resource or informant is considered to be the one who knows best or is more competent about the use of the digital scracth media learning model in improving beginning reading skills in lower grades. Meanwhile, the population of this study were all lower class students (grades 1). at SD Global Nusantara West Bandung who were implementing the 2013 curriculum towards the independent learning curriculum. This is in accordance with Patton's opinion in Papatda (2016: 127) which states that school selection: Criteria sampling, a purposeful sampling method, is used in selecting schools and students. The criterion sampling method is a general strategy for selecting a sample that emphasizes reviewing and examining all cases that meet predetermined and important criteria. In this research, the school where the research will be conducted is selected first. To determine the schools where students have the most difficulty in beginning reading. The research was conducted at schools located in areas with high, middle and low socio-economic levels. Meanwhile, the samples taken in this research were 5 class I students at SD Global Nusantara Padalarang, West Bandung Regency. The

following research results of 5 children based on the initial reading instrument can be seen in the chart below.

Table 1. Image of research results based on the initial reading instrument

No	Indicator	Very Good (91-100)	Good (81-90)	Enough (71-80)	Less (61-70)	Very less (51-60)
1.	Accuracy voiced writing	AK	RK	AL	HK	NB
2.	Reasonablenesspronunciation	NB	AK	HK	RK	AL
3.	Fairness Intonation	AL	AK	AL	HK	NB
4.	Fluency Read	NB	AL	HK	RK	AK
5.	Clarity Voice	RK	NB	AK	AL	HK

Data collection methods through observation, interviews, and documentation. The observation method is an investigation carried out deliberately systematically using the senses regarding several events that occur or are taking place to be captured at the time the event occurs. The observations used in this research are structured observations. Structured observation is an observation that is prepared systematically about what will be observed. The observation aims to find out the problems that exist in beginning reading in elementary school. According to Narbuco Cholid, the observation method is a data collection tool that is carried out by systematically observing and recording the symptoms being investigated. Meanwhile, the documentation method is a data collection technique by collecting and analyzing documents, both written documents, questionnaires, images and electronics. This method is a technique for collecting data from non-human data sources. This source is an accurate and stable source as a reflection of actual conditions and is easier to analyze repeatedly. The documentation method is a method of collecting data in the form of notes, lists of values, books, initial reading questionnaires, newspapers, magazines, photos, bookmarks, agendas and so on. The documentation method used in this research is to collect data, especially relating to students' use of the Digital Scratch media learning model to improve beginning reading skills in lower grades. Meanwhile, in data collection techniques, triangulation is carried out as a data collection technique that combines various existing data collection techniques and data sources. To achieve a level of research credibility, data was checked from various sources in various ways and at various times. In other words, triangulation is carried out on data sources, data collection techniques, and data collection techniques in different times and situations. After that, data analysis in research is the process of systematically searching and compiling data obtained from interviews, observations and documentation, by organizing data into categories, describing it into units, synthesizing it, arranging it into patterns, choosing which ones to choose. what is important and what will be studied, and make conclusions so that they are easily understood by themselves is a technique for collecting data from data sources originating from non-humans, this source is an accurate and stable source as a reflection of actual conditions and is easier to analyze repeatedly. The documentation method is a method of collecting data in the form of notes, lists of values, books, initial reading questionnaires, newspapers, magazines, photos, bookmarks, agendas and so on. The documentation method used in this research is to collect data, especially related to the use of students' use of the Digital Scratch media learning model to improve beginning reading skills in lower grades.

As for the data analysis process, the researcher carried out this method, after the researcher collected the students' initial reading questionnaire data which was obtained using observation,

interview and documentation methods. Data reduction is the process of summarizing, summarizing, or selecting the collected data. So that each data can be categorized, focused or adapted to the problem being studied. In other sources it is explained that data reduction is processing raw data that is collected, summarized and systematized, so that it is easy to understand and observe. This data reduction is a form of data analysis in such a way that the final conclusions of the research can be verified. In this case the researcher reduced data relating to the use of digital scracth media learning models in improving initial reading skills in the lower classes of SD Global Nusantara Padalarang.

The steps in observation are observing the activities of students and teachers during initial reading learning from the first meeting to the sixth meeting. Accuracy,1 voiced writing Reasonableness pronunciation mFairness Intonation Fluency Read Clarity Voice learning management and when learning to read in Indonesian language learning As a result of the teacher's observations, the number of scores obtained at the first meeting to the 6th meeting increased to 43 from a maximum score of 83, thus the percentage of achievement was 87.00%. Then, in this research, the presentation of data or a collection of structured information provides the possibility for interest and action, which is presented, among other things, in the form of narrative text, questionnaires, matrices, networks and charts. A questionnaire or questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer (Sugiyono, 2015: 199). The meanings that emerge from the data are tested for their truth and suitability so that their validity is guaranteed. In this stage, the researcher reviews the existing data repeatedly, groups them into shape, then reports the research results in full. In the final part, the data is analyzed qualitatively in dialogue with theories and concepts and then interpreted while referring to primary data obtained in the field. The data that has been obtained from the field is analyzed interpretatively, which is an effort to explain and compare the theories that have been selected with the data that has been processed. So the thinking approach that the author uses in concluding the results of this research is an inductive thinking approach. As explained by (Sugiyono, 2015), inductive thinking is an analysis process that starts from specific things and then draws general conclusions.

RESULTS AND DISCUSSION

Results

Scratch digital media supports technological advances giving rise to a new paradigm in society, namely the shift from activities that were originally carried out in the real world to the virtual world, especially after the Covid-19 pandemic, learning from early childhood education to higher levels is carried out via long distance online mode. (in the internet network) utilizing technology. Digital technology continues to improve today without being stopped. Both parents and children are users of digital media in various forms, such as computers, smartphones, gaming devices and the internet. In an increasingly sophisticated era with rapidly developing technological capabilities, new problems have arisen apart from the problem of gadget addiction, namely the low interest in reading among children from early childhood to adults. It is hoped that this digital scratch media will be a means and solution to improve reading skills with its attractive design and content of reading materials. Considering that nowadays children prefer playing with devices rather than reading books. One way to improve children's reading skills is to design a learning

model that can motivate children to want to read. The use of Scratch digital learning media is expected to increase children's reading motivation. This is in accordance with the statement by (Permatasari & Setiawan, 2020) which stated that the use of the Scratch application was able to increase student learning outcomes which were initially 71.4%, increasing to 94.3%; then the use of the Scratch application can increase student learning motivation, namely the average percentage of student learning motivation reaches 75.1%, increasing to 83.9%.

The use of Scratch digital media among lower grade elementary school children cannot be separated from problems and obstacles in its implementation. Digital-based learning problems that arise include the availability of tools for learning, schools need to provide laptop/gadget media so that children can focus on learning, children have weak self-regulation, and children's learning using digital media is said to be learning. which is interesting, challenging, and takes up a lot of time and adds to teachers' work (Dong, Cao, & Li, 2020). Digital learning has also made children lose independent thinking, reduced the amount of physical exercise, and caused eye strain from excessive screen use. Apart from that, problems include access barriers and technology use among adults and children involved includes access to the internet, devices, and applications required, due to lack of skills and competencies to use tools, the ability to integrate digital tools into learning practices (Song, Wang, & Bergmann , 2020). Educators need to consider materials and ways to better integrate learning materials with digital media and digitalization topics into learning for elementary school children and consider the facilities and tools needed in practice (Livari, 2018) . When considering the use of digital educational games as a pedagogical tool, educators play an important role by ensuring and re-evaluating all issues appropriately during learning activities through digital scracth media. Educators and parents need to pay attention to the context in which digital reading tools have content that can be useful for improving reading skills and is not harmful to children's development. While children may have an increasing interest in digital and non-digital technologies used to interact, what remains constant is that very young children have social emotional, physical, cultural and cognitive needs that must continue to be met, while potentially integrating mastery. media into various other activities (Alper, 2013).

Then teachers and parents play a mediating role to prevent danger and regulate children's digital media activities, such as preparing the use of technology and rules for digital scratch media to improve children's initial reading skills and media use (Nouwen & Zaman, 2018). At the end, parents and educators are expected to evaluate the learning that has been carried out (Kusumaningrum & Wijayanto, 2020).

The digital medium Scratch allows sharing of reading that can be done convey information in various formats, such as text, photos, video, and audio. This is in line with the definition of learning media proposed by (Holzberger et al., 2013) where digital media-based learning is learning that is delivered using digital media (such as text or images) via the Internet, learning content and teaching methods are provided to improve student learning and aim to increase teaching effectiveness or increase personal knowledge and skills.

Scratch Digital Media Learning to improve initial reading skills in elementary school children is digital media-based learning which certainly involves educators and parents in its implementation. Educators and parents need to collaborate and communicate with each other regarding children's learning. Educators play an important role in basic planning for effective learning by utilizing Scratch digital media to improve initial reading skills in learning and achieve

learning objectives, namely helping to optimize initial reading skills, so it is very important for teachers to teach reading skills to elementary school level children, especially in the early grades, namely grade 1 Elementary school is known as beginning reading. Children starting from first grade must be able to read. According to (Rahim, 2008: 2) initial reading is a process, namely the recording and decoding process. In the recording process, learning to read focuses on words and sentences which are then associated with sounds that are appropriate to the writing system used. In the decoding process, reading focuses on the process of translating graphic sequences into words. So that initial reading is the student's ability to recognize and understand written letters and symbols which are then pronounced by emphasizing aspects of accuracy in voicing the written word, proper pronunciation and intonation, fluency and clarity of voice (Ratno Saputra, 2012). Meanwhile, many children have difficulty reading at the beginning because the media is monotonous and less interesting for children. Teachers act as facilitators and accompany children's learning while at school and parents accompany them at home.

Scratch digital media in educational learning or educational learning videos, educators can design or create their own or use existing ones using various free to paid platforms. Apart from that, digital scratch technology, such as creating reading media in digital reading learning, can help train initial reading skills from recognizing letters, words, syllables, sentences (decoding) to reading which can improve children's initial reading abilities (sound pronunciation/recording). lower class elementary school children and develop creativity, by using the Scratch application through pictures, games and displays that are attractive to children. Based on the research results the level of reading ability of children in Classes I and II of SD Global Nusantara Padalarang, with the initial reading ability indicator, has increased in percentage. This can be seen by the largest increase in the recording and decoding indicators of 88%. Meanwhile, the lowest increase was 43% for recording and 44% for decoding. Meanwhile, the average increase in initial reading ability was 67.71% for recording and 66.07% for decoding.

If we look at the indicators of initial reading ability, the percentage increase that occurs can be depicted in the following graph.

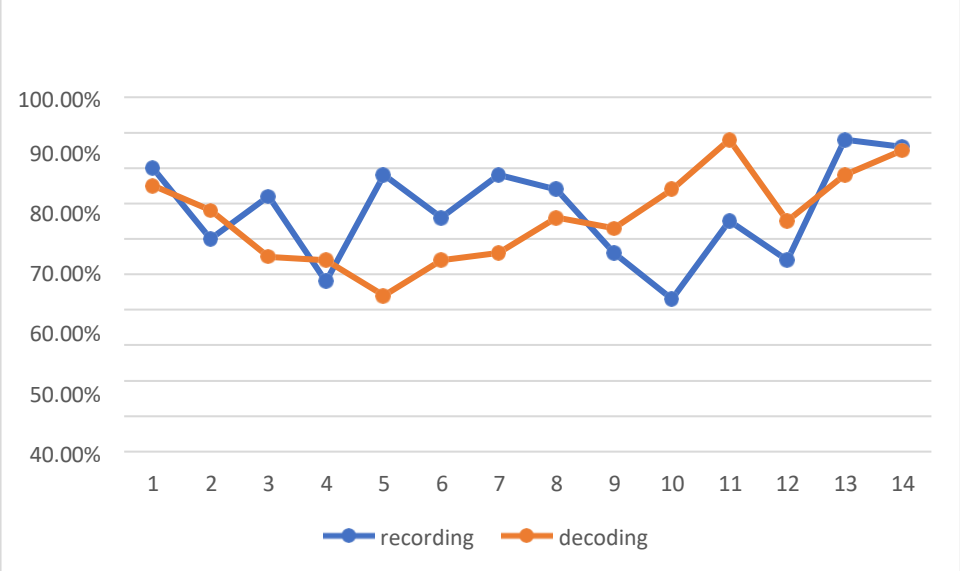

Figure 1. The Improvement in Beginning Reading Ability

The graph shows the biggest increase in the recording and decoding indicators by 88%. Meanwhile, the lowest increase was 43% for recording and 44% for decoding. Meanwhile, the average increase in initial reading ability was 67.71% for recording and 66.07% for decoding.

Discussion

Scratch is a programming language that looks fun and easy to use. It is used to create animated videos, quizzes, games, stories, and to support presentations. Scratch is usually used as a means of creating interactive and interesting learning media. Subjects that can be supported by this application include language, music, art, and mathematics. A variation of learning using technological facilities by using computers to present learning materials is called computer-assisted instruction (CAI). Scratch is a type of Computer Assisted Instruction (CAI) that is new and easy to use. The Scatch program is a program which is a simulation used for design and analysis, displayed in animation form to demonstrate the function or basic principles of learning. In early reading learning (beginning reading) the introduction of letters, words and sentences arranged in attractive color combinations with an application program that can be downloaded through a guide (handbook) designed by the teacher to develop the beginning reading skills of lower grade elementary school children (class 1) while still paying attention to and linking basic competency material in Indonesian with themes and sub-themes (holistic/thematic).

Scratch is the world's largest coding community for kids and a visually simple coding language that allows young people to create stories, games and digital animations. Scratch is designed, developed, and moderated by the Scratch Foundation, a non-profit organization. Scratch promotes computational thinking and problem solving skills; creative teaching and learning; self-expression and collaboration; and equity in computing. Scratch is always free and available in over 70 languages designed specifically for ages 8 to 16, but used by people of all ages. Millions of people create Scratch projects in a variety of places, including homes, schools, museums, libraries, and community centers.

According to Fernanda (2019:108) Scratch is a visual and modular programming language based on blocks that join together as puzzles, created in the United States by the Massachusetts Institute of Technology (MIT), with the aim of teaching programming to children and teenagers whose ages range from between 8 to 16 years. The use of the Scratch programming language has a beneficial impact on students' learning improving their creative thinking, systematic reasoning, logical thinking, problem solving and teamwork.

Children can use Scratch easily because they only need to drag/move the code blocks that are available in the application. The blocks are arranged according to the wishes used in the program. The Scratch application is used in two ways, namely online and offline. Online, it can be accessed via the official website, namely https://scratch.mit.edu. Meanwhile, offline Scratch can be used by children by downloading it first. Apart from that, there are also additional applications that must be downloaded at the same time as the main application. The name of the additional application is Adobe Air. When linked to the learning media for reading Scratch, this is a learning media for showing animated images and videos which is expected to create a non-monotonous teaching and learning atmosphere.

Likewise in learning to read. Through the use of the interesting digital media Scratch in reading, not only is knowledge transfer carried out but it is also more effective in optimizing reading abilities. In planning, educators need to determine which digital scratch media to improve

reading skills will be used according to the child's needs and characteristics. Another impact of digital scratch media is that digital technology can provide children with new opportunities to engage in interesting and relevant games, learning, communication, exploration and development. In this regard, the use of technology in the learning process has a good impact on developing children's abilities in general and can also develop aspects of reading in particular. Based on studies by Anderson and Subrahmanyam, it shows that the use of computer games and educational computer programs can produce academic benefits with relevant content and improve other cognitive skills (Anderson & Subrahmanyam, 2017). This is in line with (Ciampa, 2012) states that initial reading skills will be more interesting by using methods to improve reading skills, by providing motivation, namely making class texts more interesting. This is supported by the statement of (Sumarsih et al., 2021) who argue that media is designed with using scratch software is very effective for learning speaking. Meanwhile, according to (Suyono & Harsiati, 2017), activating the scheme is important so that students have an idea of the text they will read. Some of the impacts arising from digital media-based learning are positive and some are negative. Positive impacts on learning digital media-based provides children with new opportunities to get involved and participate in learning, can increase attention and concentration, and can develop and improve children's skills. In this case, educators and parents should be smart in selecting and managing the time for children to use technological media. Meanwhile, The negative impacts of digital media-based learning such as health problems, problems with social aspects and addiction can be minimized if educators and parents implement the right strategies and provide optimal support for children.

CONCLUSION

Scratch digital media-based learning for elementary school children is very necessary in today's times and conditions. The application of digital scratch media in the initial reading learning process requires collaboration between educators and early childhood children so that it can run with the help and cooperation between educators and parents. Good collaboration between educators and parents in learning based on digital scratch media can optimally improve children's early reading abilities. The use of digital scratch media in early reading learning will have a positive impact on children's development, but there are also negative impacts. The negative impacts that arise can be anticipated with strategies for implementing appropriate and appropriate use of digital scratch media for elementary school children in the lace class. Learning digital scratch media for elementary school children is full of pros and cons, but these challenges need to be faced. These problems can be faced with adjustments and efforts such as managing the time of use of digital media, limiting internet access, monitoring online activities, planning lessons, creating interesting reading and reading content that is appropriate to the characteristics and age of children. In doing this, of course educators and parents need to have a lot of further knowledge regarding digital scratch media-based learning for lower grade elementary school children.

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