

Learning Interactive For Increase Ability Reading for Children

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Abstract

Early childhood educators are stimulating aspects of children's cognitive development. Cognitive development is a human thought process to assess, connect, and consider a particular problem. Cognitive development in children refers to the way of thinking, reasoning, solving problems, and being able to use various symbols such as words, images, gestures, and numbers. The objectives of this study are: 1) obtain information 2) produce interactive learning multimedia that is appropriate for initial reading skills; 3) to determine the effectiveness of the media produced for the child's early reading ability. This research is a type of research and development that refers to the Dick & Carey model. The research stage conducted was 9 out of 10 stages of the Dick & Carey model. The population in the study consisted of 3 schools totaling 60 students. The sampling technique is purposive sampling with a sample of 27 people consisting of one-to-one evaluation subjects of 3 children in one school. The subject of small group evaluation is 9 people in one different school. The subject of the field trial evaluation is one class, namely 15 people in one different school. The data collection instruments used are questionnaires, observations, and tests. Data analysis was carried out in a qualitative descriptive and quantitative descriptive manner. The results of the study are as follows. (1) Multimedia Development of Interactive Learning There are several media in it, namely text, audio, visual, color, and animation. (2) Multimedia interactive learning is packaged into a flash disk with elements such as text, visuals, colors, audio, and animation. (3) Multimedia interactive learning can improve children's early reading abilities. The average score of the pretest was 70.7 and the average posttest was 95. It can be seen that the average score of children increased by 26% after using interactive learning multimedia. It was concluded that multimedia interactive learning can improve early childhood reading skills.

Keywords: early childhood, beginning reading ability, learning media, interactive learning multimedia

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INTRODUCTION

Age period early is phase crucial to become foundation beginning for growth and development children. Growth and development child related with development structural his brain. Development structural brain have influence for aspects development child. Development the brain in humans reach 50% up to age 4 years, 80% to age 8 years, and 100% up to 18 years old (U. Cubillas, 2021).

Findings neuroscience state that when birth, cells brain baby amount to around 100 billion, including cells the brain that controls beat heart, breathing, movement, reflexes, hearing, and instincts alive. When he was 3 years old, the cell brain child to form around 1000 trillion network connection or synapse. If synapse This No used, then He will dead. Frequent synapses used will the more strong and permanent especially If given stimulation or stimulation. Therefore That Lots study conclude that

education child age early very important in stimulate synapse growth and development child (Natalia, 2023) .

One of efforts that can be made done educator child age early is stimulate aspect development cognitive child . Development cognitive is a thinking process man For assess , relate , and consider a problem , phenomenon or incident certain ones faced by him . Matter This as confirmed by Sujiono (Abyadh & Abyadh, 2023) that development cognitive in children refers to the way think , give reason , solve problem , and can use various symbol such as words, pictures , gestures , and numbers .

Language is one of the very branch important in stimulate development cognitive child . Language not let go from life everyday , because Language become means communication used in life everyday . Develop ability speaking to children can done through experience directly . Languages include related activities with activity speaking , listening , reading and writing (Jalongo, 2014) . In children age early , activity read as part from ability speak categorized as read beginning .

Ability read the beginning is one of means that can develop ability cognitive child . That's it. the reason ability read the beginning very important For stimulated Because ability read the beginning can help child solve problem in life daily (Soifanah et al., 2020) . Ability read the beginning is runway for Lots essential skills in life . Ability read beginning of a child age early started with recognize , differentiate , and pronounce letters , spelling syllables , and reading simple words (Widyastuti , 2018) . (Earth, 2016) state that ability read the beginning very required in develop ability cognitive child ; ability read the beginning covering introduction and differences script , pronunciation letters , syllables and words along with sequences and the sounds that make them up sentence simple .

Regulation of the Minister of Education and Culture (Permendikbud) Number 137 of 2014 confirms that ability speak child age early including in thinking symbolic including : 1) understanding Language receptive , covering ability understand stories , orders , rules , liking and appreciating reading ; 2) expressing language , including ability ask , answer questions , communicate in a way oral , telling back to the known , learn Language pragmatics , expressing feelings , ideas and desires in form scribbles ; and 3) literacy , including understanding to connection shape and sound letters , imitate form letters , and understand the words in story .

When This Lots child age early still experience problem regarding with ability read beginning . Sarnecka & Lee's research (Cubillas, 2021) find fact that generally child experience difficulty in differentiate the letters /b/ and /d/ , /p/ and /q/ , and /m/ and /n/ . When the teacher shows letters and ask for child For mention it , still many of them those who are wrong or switched in mention it .

Another study conducted by Filasofa and Miswati (Philosophy & Miswati, 2021) find that common problems found regarding with ability read beginning of a child age early is dyslexia , namely disturbance in the learning process which is marked with difficulty in reading , writing , and spelling . Sufferers dyslexia difficulty in identify spoken words and change them become letter or sentence .

In reality on the ground , based questionnaire distributed to PAUD (Early Childhood Education) teachers in Benda District, Tangerang City, it was found fact about difficulty read beginning of a child age early , including : 1) children Not yet

know letter ; 2) child No can differentiate the letters that are almost same ; 3) child Not yet understand symbol sound ; 4) child difficulty in stringing together letters and words as well reading word by word; and 5) children Not yet capable analyze the word into letters . Based on results observation early , known that from 60 children Group B in Benda District , Tangerang City, there were 40% (24 people) who had not Can read The same once ; 35% (21 people) who have Can read but Not yet fluent ; and 25% (15 people) who have fluent read .

The problem ability read the beginning appear No solely Because internal factors such as disturbance nerves in the part brain child who causes child difficulty learn , but precisely Because factor external related with the learning process . In general learning read the beginning in PAUD institutions is lacking supported by interesting learning media for children . Teachers are more Lots using Children 's Worksheets that are not interesting so that child not enough motivated For follow activity learning .

Children aged early more interested Study with something unique and interesting , because it is a designed learning process in a way pleasant will interesting attention And interest Study they . Learning which are fun For child will more easy understood , so that objective learning can more easy achieved . Learning read the beginning will pleasant If using more and more learning media innovative and diverse so that learning become interactive and effective (Wolf, 2023) .

In the 21st century progress development knowledge knowledge and technology in progress with very rapid . Children Now must face to face with products developing technology rapid moment this . If the child No knowing and being introduced with technology , then child considered outdated , stuttering technology can also hinder acceleration development certain positive ones . Technology also has potential For increase quality education when used and utilized as good as Possible .

Use technology for child age early customized with characteristics age children , needs and environment social culture they . Technology can utilized and used in accordance with principles learning child age early . Utilization technology for child age early can stimulate its development , so that stimulate flavor want to know children and learning become more effective . Teachers can utilise technology For develop learning media that can stimulate ability child in explore and dig potential optimally in creative , innovative and fun so that can help increase ability read the beginning child .

Research conducted by Akram & Kumar (Subroto et al., 2023) find fact that digital technology is very beneficial For make it easier learning in PAUD institutions , especially ability literacy and numeracy . The results of the research he conducted show there is improvement literacy and numeracy significant child like understand letters , numbers and shapes numbers and letters during the learning process assisted with using digital technology media .

Another study conducted by Räsänen et al. (Iskandar & et. al., 2023) show that use digital technology can become intervention in increase ability read the beginning Kindergarten children who are still low . In the study This child shared become two group . Research This use intervention *digital games* for 3 weeks . Group First play

game *Study Reading*, in the game This child compare letters, syllables, and words. Groups second play game *Let's learn Reading*, in the game This child match object with the word (name) objects). Research results show ability read the beginning child increase in a way significant, so that can be concluded that effective digital technology increase ability read the beginning child.

Based on description above it can be said that development digital technology can be used or utilized for designing learning multimedia that is interactive so that very interesting for child age early. Multimedia learning interactive is a phenomenon that began to develop lately. This learning multimedia interactive plays a very important role in the learning process as well as makes learning become more effective because it merges a number of types of media in it such as audio, visual, text, animation, graphics, and others. Children more like learning media that has a number of combinations mentioned. Graves et. al (Ayuriyanti & Surjono, 2023) argue that multimedia learning interactive is enough effective used in conveying information to child, because it has a combination of a number of media rather than only conveying information using words.

Learning multimedia interactive can develop ability child, one of them is cognitive ability. This is emphasized by Shilpa & Sunita (Hanim et. al., 2021), that multimedia learning interactive can increase cognitive ability child good on concept number and draft literacy. *The National Association for The Education of Young Children* (Deborah Carter, 2016) also emphasized that multimedia learning interactive used in a way appropriate can increase social and cognitive ability child age early.

Based on questionnaire open it is known to PAUD teachers in Benda District, Tangerang City that use or utilization of learning multimedia interactive in the learning process it turns out to be interesting to child so that can help them increase ability read its beginning. On the basis of that it is so researcher mean to develop learning multimedia special interactive intended for as a learning medium in frame increase ability read the beginning for children age 5–6 years.

Learning multimedia interactive developed this will merge some media such as images, colors, text, sound, and animations created as interesting as possible. Learning multimedia interactive packed to in *flash drive* this customized with objective learning child age early, especially learning read beginning. Material on multimedia learning interactive this customized with stage ability read child started with letters, syllables, words and sentences simple.

Issues that arise in study this among others: (1) Needs what only what is needed for developing learning multimedia interactive? (2) Learning multimedia interactive like what is appropriate or appropriate used for increase ability read the beginning child 5–6 years old?; and (3) What is multimedia learning interactive developed this enough effective in increase ability read the beginning child age 5–6 years? Based on problem said, then objective study this is: (1) For to obtain information about things what only what is needed in developing learning multimedia special interactive intended for for increase ability read the beginning child age 5–6 years; (2) For produce learning multimedia interactive, engaging and effective in increase ability read the beginning child age 5–6 years; and (3) For know

effectiveness use of learning multimedia interactive generated the in increase ability read the beginning child age 5–6 years .

Method

1. Approach Research and Products Developed

Study This use approach Research and Development (*Research & Development*). Products yes developed in the form of a learning multimedia interactive For increase ability read the beginning child age 5–6 years . Steps development product refers to the development model according to Dick and Carey (Chaparro et al., 2023) . In the Dick and Carey model there are 10 stages of the process that begin from beginning development until end product as results development (Erfani, 2019) , that is : (1) identify objective learning , (2) do analysis learning , (3) analyzing characteristics children and context learning , (4) formulate objective learning , (5) develop instrument evaluation , (6) develop strategy learning , (7) develop And choose teaching materials , (8) designing and implementing evaluation formative , (9) revision learning , (10) designing And carry out evaluation summative . Evaluation summative usually done by evaluator independent that is people outside activity in evaluation And own instrument the assessment that Already standardized . Therefore that , researcher No carry out evaluation summative This Because according to Borg and Gall (in Sugiyono , 2016), evaluation This No including in program development .

2. Sampling Techniques and Research Samples

Sampling techniques used that is *purposive sampling* based on the school that will become test site use of learning multimedia interactive , namely RA (Raudhatul Athfal) As-Sudaisi, RA Al- Istiklaliyah , and RA Al-Hikmah, all of whom located in Benda District , Tangerang City. Trial done around January – March 2024.

3. Data Collection Instruments and Techniques

Data collection was carried out with do interview to the class teacher , head of school school , and students who become Respondent research . While observation done direct to students and class teachers in situation learning . Trial product done use quasi- experimental method use instrument in the form of questionnaire For implementation of pre-test and post-test.

4. Sources and Data Analysis Techniques

Data sources in study especially originate from students and class teachers who become Respondent research . Data analysis techniques used For measure the effectiveness of the program is with compare score ability read pre-test start (before using learning multimedia interactive) and post-test (after using learning multimedia interactive). Technique analysis data Which used in study is descriptive qualitative and quantitative . Analysis qualitative in research This done on the data obtained throughquestionnaire open for educators about ability read the beginning children and media Which has used . Temporary that , analysis descriptive quantitative used in analyze data scale mark from results evaluation validator expert media, results expert validator assessment material , results teacher and child assessment towards the media that used .

RESULTS AND DISCUSSION

Trials third titled *field trial evaluation* (trial) group big) at RA Al-Hikmah which involved 15 students , 5 people each representing students who have fluent reading , students who are still stammering in reading , and students who have not Can read .

Table 3 Ability Score Calculation Read Start of 3rd Trial

Variables	Subvariables	Question Indicator	Score
Ability Read Beginning of Children Aged 5-6 Years	Letter	1. Know letter	15
		2. Differentiate letter	15
		3. Sounding letter	15
	Syllables	4. Spell syllables	15
		5. Breaking Down syllables	15
	Say	6. Reading single words without spell	15
		7. Stringing together letter or syllables into single words	15
		8. Match picture object with the appropriate words	15
	Sentence Simple	9. Read sentence simple shaped statement with correct intonation	15
		10. Read sentence simple shaped question with correct intonation	15
		11. Read sentence simple shaped order with correct intonation	15
	Short Text	12. Read text short with smooth and precise in accordance sign read	10
Ability Score Read The Beginning			175

this test , researchers do *pretest* and *posttest* with objective see improvement ability read the beginning child after using learning multimedia interactive . On day First , researcher do *pretest* moreover formerly to child with use Sheet Work Child. Objective from *pretest* This is researcher want to see ability beginning counting child . Based on data analysis by researchers get , then researcher give *treatment* to child with using multimedia learning interactive For increase ability read the beginning child age 5-6 years . Here This table results calculation mark *pretest* ability counting beginning .

Table 4 Results of Pretest Value Calculation

Subject	highest score	Lowest Value	Average
15 Children	82.1	50	70.7

Based on the table above results calculation pre- *test* ability score beginning read the beginning children at RA Al-Hikmah namely mark highest of 15 children

is 82.1, while mark lowest is 50 with an average of 70.7. For that , researcher give *treatment* with using learning multimedia interactive For increase ability read the beginning child age 5-6 years at RA Al-Hikmah.

For see results from use of learning multimedia interactive , researcher do *posttest* with using the same Children's Worksheet on *pretest* with objective see improvement on ability counting child age 5-6 years . Here This table results calculation mark *posttest* ability read the beginning child after using learning multimedia interactive .

Posttest Value Calculation Results

Subject	highest score	Lowest Value	Average
15 Children	100	89.3	95

Based on results the table above obtained results calculation from mark *posttest* ability read the beginning child after using learning multimedia interactive that is mark highest 100, value lowest 89.3 with an average of 95. It can be seen that multimedia learning interactive can increase ability read the beginning child , seen from results *posttest* which is on the sheet Work child . Here This comparison results mark *pretest* and value *posttest* on ability read the beginning child .

Table 6 Comparison of Pretest and Posttest Values

Variables	Pretest	Posttest
highest score	82.1	100
Lowest Value	50	89.3
Average	70.7	95

Based on research conducted researcher , seen that results *pre-test* with an average of 70.7 with mark highest 82.1 and value lowest 50. After being given *treatment* with using learning multimedia interactive ability counting on child increase . Seen from average on *posttest* namely 95, with mark highest 100 and value lowest 89.3. Researchers describe comparison mark every child at the time *pretest* and *posttest* in the picture following.

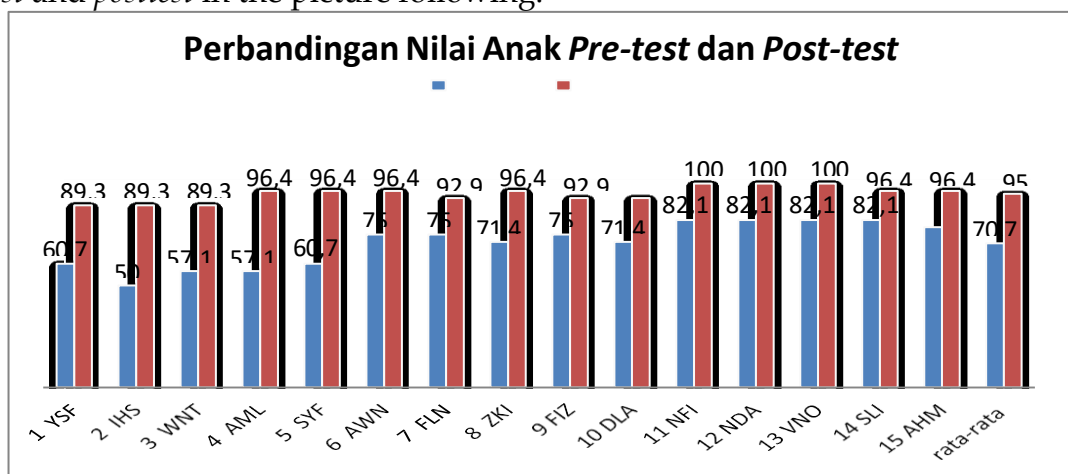


Figure 1 Comparison of Pretest and Posttest Scores

Based on the image above looks existence difference ability read the beginning when before and after using learning multimedia interactively . In overall ability

read the beginning child experience significant improvement after using learning media interactive .

CONCLUSION

Learning multimedia interactive is a great learning medium important for child age 5–6 years For help they make it easier in Study read beginning . With the existence of learning multimedia interactive This expected child capable develop all aspect ability read the beginning . Book guide use of learning multimedia interactive expected will make it easier for teachers and students For using learning multimedia interactive the in a way independent . Research results show that use of learning multimedia interactive capable increase ability read the beginning child in a way significant . It is seen from results *pretest* and *posttest* which shows improvement score from *pretest* to *posttest* . With thus can concluded that use of learning multimedia interactive can increase ability read the beginning child age 5–6 years in a way significant .

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