

# The Effectiveness Of Learning Video Media To Increase Interest In Cognitive Learning Of Kindergarten Children

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## ABSTRAK

*Pembelajaran yang monoton sehingga minat belajar anak rendah. Penelitian ini bertujuan menganalisis keefektifan media video pembelajaran berbasis multimedia (vibel) untuk meningkatkan minat belajar kognitif anak Kelompok A. Jenis penelitian yang digunakan adalah R and D. Model pengembangan yang digunakan dalam penelitian ini adalah model pengembangan Borg and Gall dengan sepuluh langkah pengembangan. Populasi dalam penelitian ini adalah anak TK sebanyak 60 orang, guru TK sebanyak sepuluh orang, dan kepala TK yang berjumlah lima orang. Teknik pengumpulan data menggunakan observasi, wawancara, angket, dan dokumentasi. Teknik analisis data meliputi analisis data produk, analisis data awal dengan uji normalitas, dan analisis data akhir dengan uji N-gain dan t. Hasil penelitian adalah media video pembelajaran dinyatakan layak untuk anak TK berdasarkan validasi ahli materi sebesar 75 dengan kategori layak dan validasi ahli media sebesar 76 dengan kategori layak. Media video efektif digunakan untuk meningkatkan minat belajar kognitif anak TK di Rembang. Keefektifan video pembelajaran berdasarkan uji coba produk terbatas dan uji coba produk luas dengan t hitung lebih banyak dari t tabel dengan t hitung 33,53 lebih banyak dari t tabel 2,02 dan uji n gain pada uji terbatas kategori efektif. Implikasi dari penelitian ini diharapkan dapat merangsang minat belajar kognitif anak.*

## ABSTRACT

Monotonous learning so that children's interest in learning is low. This study aims to analyze the effectiveness of multimedia-based learning video media (vibel) to increase the cognitive learning interest of Group A children. The type of research is R and D. The development model used in this research is the development model of Borg and Gall with ten development steps. The population in this study was 60 kindergarten children, ten kindergarten teachers, and the head of the kindergarten totaling five people. Data collection techniques used observation, interviews, questionnaires, and documentation. Data analysis techniques include product data analysis, initial data analysis with a normality test, and final data analysis with N-gain and t-tests. The study results are learning video media declared feasible for kindergarten children based on material expert validation of 75 with a decent category and media expert validation of 76 with a decent category. Video media is effectively used to increase the cognitive learning interest of kindergarten children in Rembang. The effectiveness of learning videos based on limited product trials and broad product trials with a t count more than the t table with a t count of 33.53 more than the t table of 2.02 and n gain test in limited tests in the effective category. The implication of this research is expected to stimulate children's cognitive learning interest.

## 1. INTRODUCTION

Education is very important to instill early on because education is a determinant of success in the future. Early childhood learning is holistic and integrated, developing all aspects of development, including moral and religious values, cognitive, physical-motor, language, and social-emotional (Sumiati et al., 2021; Wandu et al., 2019). Integrated means that learning only teaches one field of study. There is continuity between aspects of child development. One aspect that must be developed is the cognitive aspect (Afsari et al., 2022; Rahmaniar et al., 2022). Cognitive is a thought process, the ability of individuals to connect, assess and consider an event or event (Juwantara, 2019; Mukhlis Safitri et al., 2020).

Cognitive relates to children's intelligence in solving problems, numeracy skills, and knowing numbers. Children aged 2-7 years are at the preoperational stage in cognitive abilities (Handaryani et al., 2019; Mahmudi et al., 2020). Age 4-6 years is a sensitive period for children. The sensitive period is a period of maturation of physical and psychological functions that are ready to respond to the stimulation provided by the environment. Cognitive is the embodiment of primary abilities, language skills (verbal comprehension), remembering (memory), reasoning or thinking logically (reasoning), understanding space (spatial factors), numbers (numerical abilities), using words (word fluency), and observe quickly and carefully (perceptual speed) (Alam et al., 2020; Nurwahyuni et al., 2021). In efforts to improve cognition, it is hoped that children will have a good interest in learning. Interest in learning is a tendency that directs students towards fields that they like and is passionate about without coercion from anyone to improve their quality in terms of knowledge, skills, values, attitudes, interests, appreciation, logic of thinking, communication, and creativity (Rimelvi et al., 2020; Sudaryono et al., 2018; Wardani et al., 2020).

However, the child's cognitive still need to improve due to low interest in learning. Most teachers have never used multimedia-based learning media. Teachers need more innovation in multimedia-based learning media due to minimal IT skills. Multimedia-based learning has not been used in kindergarten learning. Based on observations made by researchers at the Gugus Ki Hajar Dewantoro Kindergarten during learning, children seem to lack interest in learning, especially cognitive aspects. Only a small number of children are still enthusiastic about learning. As a result, children's learning outcomes are low. The data from the assessment results showed that out of 20 children who attended the lesson, only five children received BSH scores (Developing as expected), and 15 children received MB scores. Based on the results of these observations, the child's cognitive learning interest is low. The lack of interest in children's learning is due to the need for more interest in children participating. Teaching media materials derived from books and using the same instructional media every year are reasons for the need for more interest in children learning. This research is expected to increase children's interest in learning, especially cognitive aspects. Interest is the basis for the formation of a habit. Learning is a process of changing behavior intentionally to get a better chance, from not knowing to know, from being unskilled to being skilled, from not being able to do something to be able to do something, and so on.

The solution to overcome these problems is by using learning media. Learning media are everything, such as tools, environment, and all activities that are conditioned to increase knowledge, change attitudes or instill skills in everyone who uses them (Izzaturahma et al., 2021; Nagge et al., 2018). One of the media that can be used is learning video media. Video learning is a media designed systematically by referring to the applicable curriculum, and in its development, it applies the principles of learning (Hardiyanti et al., 2020; Krisna Bayu et al., 2021; Mayar et al., 2022). Technology in today's era has many learning media that use information technology in various forms, such as audio-visual and video media. Several findings state that video media is appropriate for use in the learning process. Thematic learning video media for early childhood 5-6 years based on local wisdom (Suryana et al., 2021). Animated video media to improve listening skills in early childhood (Ariani et al., 2021). The use of video cameras in learning and their implications for early childhood services (age 4-6 years) (MAHYUDDIN et al., 2016). The development of instructional video media has been carried out a lot. However, video media was created in this study to increase interest in cognitive learning. This study aimed to analyze the effectiveness of learning videos in increasing interest in cognitive learning of kindergarten children.

## 2. METHOD

This study uses a research and development (R&D) research design. According to Sugiyono (2019: 297), development research or research and development (R&D) is a basic research activity to obtain information on user needs (need assessment), then proceed with development activities (development) to produce products and examine the effectiveness of these products (Sugiyono, 2019). The population in this study were Kindergarten children from Group A of 20 Kartini Kindergarten children, 20 Sentana 01 Kindergarten children, 20 children from Sentana 02 Kindergarten, Group A Kindergarten teachers in Gugus Ki Hajar Dewantoro Kindergarten, ten people, and 5 Kindergarten Principals. in the Solang district. The data collected and used in this study came from needs analysis, validity, and effectiveness data. Data collection techniques in this study used interviews, observation, questionnaires, documentation, and validation. The test equipment used in this study is the analysis prerequisite test, including the normality test and homogeneity test. Test the hypothesis with the N-gain test and t-test.

### 3. RESULT AND DISCUSSION

#### Result

The first stage is the analysis of learning media needs. The results of a preliminary study on implementing learning in Kindergarten Group A in the Ki Hajar Dewantoro cluster show that the teacher only uses the same monotonous media daily to make children less interested in learning. Based on this analysis, it is necessary to have learning media that can attract children's interest in learning. Apart from observation, the researcher also conducted interviews with children, teachers, and kindergarten principals. From the interviews, information was obtained that most of the teachers had never used multimedia-based learning media. The teacher needs more IT skills because the teacher needs more innovation in making multimedia-based learning media. Seeing today's technological developments need to be synergized with current learning, multimedia-based learning has yet to be used in learning in kindergarten. Based on the problems above and by looking at the conditions in the field, it is necessary to develop instructional video media. The teacher must be good at choosing the methods and media that should be used so that children can be captured by what is conveyed so that learning becomes effective. Next, determine the learning material that will be applied using multimedia-based learning media.

The second stage is the development of learning video media. Learning video media is learning media in the form of learning videos than in carrying out assignments through word wall applications. The development of multimedia-based Vibel media is carried out in steps. First, mapping product goals with existing problems, the purpose of making products is to increase interest in cognitive learning of kindergarten children. Second, all the materials that will be made by media development. Third, make a product design to be developed. The product design is multimedia-based Vibel media in the form of learning videos to increase children's cognitive learning interest. Fourth, seek information about material and media experts who will validate the product design to be developed. The third stage is the feasibility of learning video media. After the design stage of the media product has been developed and validated by experts, the feasibility level of the media is known. Furthermore, the validation results obtained are quantitative data derived from the sum of the questionnaire scores and qualitative data derived from comments and suggestions from experts. The criteria are feasible based on the results of the questionnaire filled out by the validators. The Media validator gets a score of 75 with the appropriate criteria, and the material validator gets 76 with the feasible criteria. Based on the results of the two validators, multimedia-based learning media is appropriate for learning in kindergarten. Validator assessment includes overall value, relevance, accuracy, use, appropriateness, relevance, objectivity, and feedback. Some of these aspects are described in several indicators formulated in the question. Multimedia-based learning media is feasible because the media developed is by the objectives of making media and needs analysis of learning media in kindergarten.

The fourth stage is the effectiveness of learning video media. Based on limited multimedia-based Vibel media trials, a significant increase was obtained in classes that used multimedia-based learning media compared to classes that did not. This is based on the results of observations before and after using the media. To test the effectiveness using the N-gain test with high and effective criteria. This shows that multimedia-based learning media effectively increases children's learning interest—the results of the N-gain test. The extensive trials are presented in [Table 1](#).

**Table 1.** The results of the N test - the gain of the wide trial

No	Score	Class
1	N -gain	0,727
2	Criteria	Tinggi
3	N-gain %	72,7
4	Interpretation	Effective enough

Based on [Table 1](#), the N-gain result is 0.727 in the high category with  $g \geq 0.727$ . It can be interpreted that there is an increase in children's cognitive learning interest in the high category. The N-gain score of 72.7 can be interpreted as quite effective. Thus the development of multimedia-based vibel media is quite effective in increasing interest in cognitive learning of kindergarten children. The results of the Independent Paired Sample T Test are presented in [Table 2](#).

**Table 2.** Independent Paired Sample T Test

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 postes - pretest	39.025	7.361	1.164	36.671	41.379	33.532	39	.000

The results of [Table 2](#) show that the T count is 33.53 while the score of t table df 39 is 2.022, so  $33.53 > 2.022$  because t count > t table then  $H_0$  is rejected and  $H_a$  is accepted. It can be interpreted that developing multimedia-based vibel media can increase kindergarten children's interest in cognitive learning.

## Discussion

Based on the development research results and discussion described in the development of multimedia-based learning media by the needs analysis in learning. The results of initial observations, student interviews, and interviews with teachers and principals show that children's learning interest is reduced in learning. This is because the learning media used is monotonous, so children feel bored because they repeat the same thing daily. For this reason, it is necessary to develop multimedia-based learning media to increase kindergarten children's learning interests. The development of multimedia-based Vibel media can increase the cognitive learning interest of Kindergarten children. The development of multimedia-based Vibel media can increase the cognitive learning interest of Kindergarten children. Using video to improve learning outcomes is also very effective because the appearance and material are packaged attractively so that student activity and interest in learning increases. Interest in learning for children is needed so that children can learn well. Interest is important because people will study or work well if they are interested and will only study or work well if they are interested ([Kamelia, 2019](#); [Widiarti et al., 2021](#)).

Interest in learning can be increased by using learning video media. The use of video is a medium for conveying factual or fictitious messages, informative, educative, or instructional ([Fitria, 2018](#); [Yusnia, 2019](#)). Children's learning interests cannot develop properly if not supported by a stimulus that can trigger interest ([Alifah et al., 2019](#); [Sudaryono et al., 2018](#)). Children's learning interest will be higher if they use media that is more interesting and fun for children. This finding is reinforced by previous research findings stating that thematic learning video media for early childhood 5-6 years is based on local wisdom ([Suryana et al., 2021](#)). Animated video media to improve listening skills in early childhood ([Ariani et al., 2021](#)). The use of video cameras in learning and their implications for early childhood services (age 4-6 years) ([MAHYUDDIN et al., 2016](#)). The implications of this research are expected to stimulate children's cognitive learning interests.

## 4. CONCLUSION

Development of multimedia-based learning media through learning videos and digital children's activity sheets. Presentation in audio-visual that is easy for children to use, of course, with teacher assistance. Multimedia-based learning media is declared suitable for use as learning media for kindergarten children. Multimedia-based learning media is effectively used to increase kindergarten children's learning interests. The effectiveness of media in the category is quite effective. So, the development of multimedia-based learning media to increase children's learning interest is proven.

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