

Classical Services Using Hots-Based Interactive Multimedia for Fifth-Grader of Elementary School

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Abstract

The absence of learning media utilization in instructors' traditional service delivery methods leads to the conduct of this study. Teachers should employ classical services as a starting point for HOTS-based learning, given that students begin formal education in elementary school. It is envisaged that students would be able to contribute to developing critical thinking abilities. Teachers should be allowed to employ multiple learning materials to make this service more exciting. These interactive multimedia resources integrate audio and visual content to support students in using learning technology 4.0, exercising critical thought, and developing a passion for learning. This study uses descriptive quantitative approaches to explain the feasibility findings of the HOTS-based learning medium. It's a highly workable requirement, as it falls within the 81-100% range of the multimedia eligibility threshold. This information was gathered via a survey using a Google form. The results of the feasibility questionnaire analysis acquired from the instructor were 87.6% and the results gained from the students were 87.3%, indicating that it is exceedingly practicable.

Keywords: *Classical Services, Interactive Multimedia, and HOTS Learning*

Abstrak

Penelitian ini dilaksanakan berdasarkan kurangnya penggunaan media pembelajaran dalam proses layanan klasikal yang diterapkan oleh guru. Layanan klasikal sebaiknya diterapkan oleh guru sejak siswa menempuh pendidikan formal di sekolah dasar sebagai cara yang tepat untuk mulai menggunakan pembelajaran yang berbasis HOTS. Harapannya siswa mampu berkontribusi mengembangkan kemampuan berpikir kritis. Guru dapat melaksanakan layanan ini agar lebih menarik maka seharusnya dapat menggunakan bantuan media pembelajaran yang variatif. Multimedia interaktif ini menggabungkan media audio dan media visual untuk membantu siswa dalam menggunakan teknologi pembelajaran 4.0 dan berpikir kritis serta meningkatkan daya tarik tersendiri bagi siswa dalam proses belajar. Penelitian ini menggunakan metode kuantitatif deskriptif untuk mendeskripsikan hasil kelayakan media pembelajaran berbasis HOTS. Berdasarkan kriteria tingkat kelayakan multimedia yang berada pada rentang 81-100% merupakan kriteria sangat layak. Data ini diperoleh dari angket melalui google form. Pada hasil analisis angket kelayakan yang didapat dari guru sebesar 87,6% dan hasil angket kelayakan dari siswa sebesar 87,3% yang berarti sangat layak untuk digunakan.

Kata kunci: Layanan Klasikal, Multimedia Interaktif, dan Pembelajaran HOTS



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PENDAHULUAN

The teacher, an educator, should possess integrity and commitment in conducting the profession. The teacher is a conducive class manager and conveys knowledge in the learning process. (Ibda, 2015) The learning process needs to be planned and well-organized by the teacher before hosting the class. As the class manager, the teacher should be able to use instructional media in the classroom, which builds the variety of learning scenarios and decreases the monotonous learning activities. To optimize the function of learning media, the teacher needs to design appropriate learning media that can stimulate students to grab the material. In developing media, the teacher pays attention to the suitability of the material and media, as the syllabus describes. Children 10 to 11 years old are in middle childhood, where their development occurs slowly but consistently (Santrock, 2012); (Nyiagani & Kristinawati, 2021); (Adibussholeh, 2022). As it should be, a ten-year-old is in the fifth grade of elementary school. The theory of a ten-year-old cognitive development has concrete operational skills and starts to reason logically using facilities that are easy to see, touch, and operate.

The results of the feasibility teaching media use evaluation in Indonesia since 2018 technological developments in Learning 4.0 still need innovative learning processes to attract students' attention to learning (Kusumawati et al., 2021). The target of learning 4.0 formation is solely to assist students in gaining knowledge and acquiring soft skills regarding using technology-based applications. The use of multimedia by teachers is claimed to increase students' eagerness to participate in the learning process. Fifth-graders in elementary school require concrete objects, allowing the five senses to access them. When the five senses work well, the developed media assist students in getting specific information, especially the formation of new schemes that are useful for developing the schemes they have obtained and will store them in their long-term memory (Astuti et al., 2021).

Piaget states that every human processes additional information as they have had initial knowledge called a schema. Humans are learning creatures; even from infancy, the brain can digest specific images and store them as schemes. If they receive new information, there will be an accommodation process synchronizing the old schema to new information. (Andriyani et al., 2020) The brain will sort out whether the new information can support old-stored information in long-term memory or even be in the form of new information stored in other brain branches (Astuti et al., 2021) (Ambarsari & Harun, 2018).

Multimedia combines two or more teaching media into one to convey messages to a group (Widyaningsih & Ganing, 2021). The need analysis results define that fifth graders take a learning media to understand material about friends caring for their health. Teachers can use interactive multimedia to give new nuances in overcoming the boredom of fifth graders, which often meets teacher-centered learning. Moreover, merging images, sounds, and videos allows students to access the material. Interactive multimedia is more communicative and interactive than other learning media. (Ambarsari & Harun, 2018)(Hartiyani & Ghufro, 2020)(Mansur & Rafiudin, 2020) It allows each student to access different subjects with other students simultaneously. To illustrate, student A is more interested in learning PPKn, student B wants to learn Indonesian first, and student C intends to learn social studies. The teacher can be a facilitator who helps students understand the temporal context in the Google site-based interactive multimedia that the researcher has developed.

(Mansur & Rafiudin, 2020) and Setyawan (2019) state that Google Site is an integrated media between the website and google that the teacher can use. When employing the Google site media in teaching and learning, students can access it via their smartphones, providing internet and credit. This Google site media can combine video, images, and audio with its uniqueness which can be accessed anytime,

anywhere, and with any materials in the media. In line with (Sevtia et al., 2022), using Google site media will significantly assist teachers in delivering learning.

From some exposure to the theory, multimedia Google sites can also be developed to create conceptual mastery and critical thinking skills, as learning can run appropriately and motivate students to participate in the learning process since the developed Google site multimedia provide opportunities for students to observe videos, images, and audio in the learning process where the time is more flexible.

This research aimed to evaluate the validity and feasibility of the Google site interactive multimedia for fifth-graders of elementary school, which combines three subjects in a meeting on theme 4, learning four about essential health. Subjects in this theme include PPKn, Social Studies, and Indonesian. The researcher has also included evaluation materials for students, media experts, material experts, and individual or user trials in each subject.

As an educator, a teacher must demonstrate honesty and dedication in performing their duties. The function of the teacher is to administer the classroom in a manner conducive to learning and to impart knowledge. (Ibda, 2015) Before hosting the class, the instructor must carefully arrange and organize the learning process. The instructor should be able to employ instructional media in the classroom so that there are more diverse learning scenarios and fewer repetitive learning activities. To maximize the effectiveness of learning media, instructors must create materials that motivate students to engage with the subject matter. As stated in the curriculum, the instructor considers the appropriateness of the subject matter and medium while creating media. Children between the ages of 10 and 11 are at the center of their growth, which happens gradually but steadily (Santrock, 2012; Nyiagani & Kristinawati, 2021; Adibussholeh, 2022). A ten-year-old child should be in the fifth grade of an elementary school, as it should be. According to ten-year-old cognitive development, this age marks the beginning of logical reasoning employing simple facilities to see, touch, and use.

The findings of Indonesia's examination of the viability of educational media use since 2018 To keep students interested in learning, technological advancements in Learning 4.0 still require creative teaching methods (Kusumawati et al., 2021). Only helping students obtain information and soft skills related to using technology-based apps is the primary goal of learning 4.0 formation. Pupils' enthusiasm to engage in learning improves when teachers employ multimedia in the classroom. For the five senses to be accessed, fifth graders in primary school need basic things. When the five senses function correctly, the produced media help students get technical information, particularly the creation of new schemes that help develop the schemes they have gotten and store them in their long-term memory (Astuti et al., 2021).

According to Piaget, people process new information as they do their previous or schematized knowledge. Humans are intelligent organisms whose brains can process and retain distinct pictures as mental schemes as early as infancy. If they do, an accommodation procedure will take place to adapt the existing schema to the new data. In 2020, Andriyani et al. According to Astuti et al. (2021) and Ambarsari & Harun (2018), the brain will determine if the new knowledge can support previously stored information in long-term memory or even take the shape of new information stored in other brain branches.

A group can receive messages by using multimedia, which mixes two or more educational media into one (Widyaningsih & Ganing, 2021). According to the findings of the need analysis, fifth graders should use a learning tool to comprehend information about friends taking care of their health. Teachers might employ interactive multimedia to provide new subtleties to combat the fifth-grade students' ennui, which frequently results from teacher-centered learning. Additionally, combining pictures, sounds, and videos makes the information more accessible to pupils. Compared to other learning

mediums, interactive multimedia is more communicative and interactive. 2018 (Ambarsari & Harun)2020 (Hartiyani & Ghufro) In 2020, Mansur and Rafiudin Each student can access many classes concurrently with other students thanks to this technology. For example, student A prefers to study PPKn, student B wants to start learning Indonesian, and student C wants to study social studies. The teacher can act as a guide to help students understand the context of the material in the interactive video that the researcher has made for the Google site.

In 2020, Mansur and Rafiudin, According to Setyawan (2019), the instructor can utilize the Google Site as an integrated medium between the website and Google. When using Google Sites Media to teach and learn, students can use their smartphones to get to it, which gives them access to the internet and credit. With its unique ability to be viewed anytime, anywhere, and with any media resources, this Google site media can integrate video, photos, and audio. According to (Sevtia et al., 2022), utilizing Google site media would greatly aid teachers in imparting knowledge.

After being exposed to the theory, students may use Google sites with multimedia to strengthen their conceptual understanding and critical thinking abilities. This will help the learning process go smoothly and encourage the participation of the students. Since the time for learning is more flexible on the built Google site, multimedia allows students to see films, photographs, and audio.

This study aims to assess the validity and viability of the Google site's interactive multimedia for fifth-graders in primary school, which integrates three topics in a meeting on the theme of essential health and teaches four different things about it. PPKn, Social Studies, and Indonesian are covered in this topic. Additionally, the researcher has provided evaluation resources for each topic area for students, media professionals, material experts, and individual or user trials.

METODE

The method used in this study was a quantitative survey. The research data was used to illustrate the actual situation regarding the questionnaire result and to answer research questions about either one variable or more without making comparisons or relationships with other variables. Descriptive research is carried out by seeking information about existing signs, clearly explaining the goals to be achieved, planning, and collecting the necessary data through a questionnaire. This quantitative approach describes the variables presented through numbers of the HOTS-based interactive multimedia applications feasibility on theme four about essential health for both teachers and students. Respondents were 34 students and nine teachers from Lampung, East Java, Bali, and North Kalimantan by filling out the eligibility forms for learning media. Rahman et al. (2022) initial subjects in systematic random sampling were taken randomly, while subsequent subjects were selected systematically. It is a procedure where each item is selected, where the object is the number of items in the sampling frame divided by the number to be used in descriptive quantitative research to describe the effectiveness of interactive learning media between students in several elementary schools in Indonesia or other words the sample used in the research no need for generalization.

HASIL DAN PEMBAHASAN

The feasibility evaluation is obtained from media experts, material experts, and linguists using the formula proposed by Purwano et al. (2014). The quantitative data analysis technique provides validation questionnaire sheets to the validator, and numbers then describe the validation result. Analysis of the data used the following formula:

$$NP = \frac{R}{BC} \times 100\%$$

Where:

P: Expected percent value

R: Score obtained

SM: Maximum Score

The analysis result is matched with the appropriate criteria in the following table.

Table 1 The Feasible Level Criteria of Learning Media

Percent (%)	Criteria
81%-100%	Very Feasible
62%-80%	Feasible
43%-61%	Quite Feasible
42%-33%	Somewhat Feasible
<32%	Less Feasible

Source: Modifikasi (Purwano dkk, 2014)

The table is a modification of Purwano et al. (2014) which describes the presentation of the feasibility of the results of the analysis of the questionnaire in quantitative research. The media will be declared very relevant if it has a percentage range between 81-100%, it is declared feasible if it is in the 62-80% range, and it is declared quite feasible if it is in the 43-61% range.

Table 2 Eligibility Questionnaire for Teacher

No	Statement	Percentage of Feasibility
1	Conformity of interactive learning multimedia with learning themes	87,1%
2	Conformity of multimedia with the fifth-graders of elementary school characteristics	84,1%
3	Conformity of multimedia as a media source in the learning process	87,1%
4	Google Site Interactive Multimedia can increase Student Learning Motivation	89,4%
5	Google Site Interactive Multimedia can attract students' attention	88,2%
6	Multimedia ability as a media to understand and remember learning material	90,0%
7	The clarity of the teaching materials	88,2%
8	The fonts of the multimedia google site meet the standard and are easy to read/understand	87,6%
9	Conformity of interactive multimedia layout (subjects, image context, etc.)	86,5%
10	Conformity of interactive multimedia illustrations used in learning instructions	87,6%
	Average	87,6%

Table 2 presents students' responses after using the interactive multimedia in the learning process in that they filled out a questionnaire through a Google form. The questionnaire is similar to the questionnaire for teachers, and the student's responses were analyzed using eligibility percentages. The questionnaire possesses ten statements, which were distributed through Google Forms. The questionnaire result defines that interactive multimedia is feasible to be used as learning media for teaching and learning. The highest student response was statement 6, with 90% claiming that interactive multimedia can help them understand and remember the material well. Also, they find that Google side multimedia successfully motivates and attracts them to study, with 87.6% agreeing.

Table 3 Eligibility Questionnaire for Student

No	Pernyataan	Persentase Kelayakan
1	Conformity of interactive learning multimedia with learning themes	86,7%
2	Conformity of multimedia with the fifth-graders of elementary school characteristics	84,4%
3	Conformity of multimedia as a media source in the learning process	86,7%
4	Google Site Interactive Multimedia can increase Student Learning Motivation	88,9%
5	Google Site Interactive Multimedia can attract students' attention	88,9%
6	Multimedia ability as a media to understand and remember learning material	91,1%
7	The clarity of the teaching materials	88,9%
8	The fonts of the multimedia google site meet the standard and are easy to read/understand	88,9%
9	Conformity of interactive multimedia layout (subjects, image context, etc.)	84,4%
10	Conformity of interactive multimedia illustrations used in learning instructions	84,4%
	Rata-rata	87,3%

Table 3 presents students' responses after using the interactive multimedia in the learning process in that they filled out a questionnaire through a Google form. The questionnaire is similar to the questionnaire for teachers, and the student's responses were analyzed using eligibility percentages. The questionnaire possesses ten statements, which were distributed through Google Forms. The questionnaire result defines that interactive multimedia is feasible to be used as learning media for teaching and learning. The highest student response was statement 6, with 91,1% claiming that interactive multimedia can help them understand and remember the material well. Also, they find that Google side multimedia successfully motivates and attracts them to study, with 87.3% agreeing.

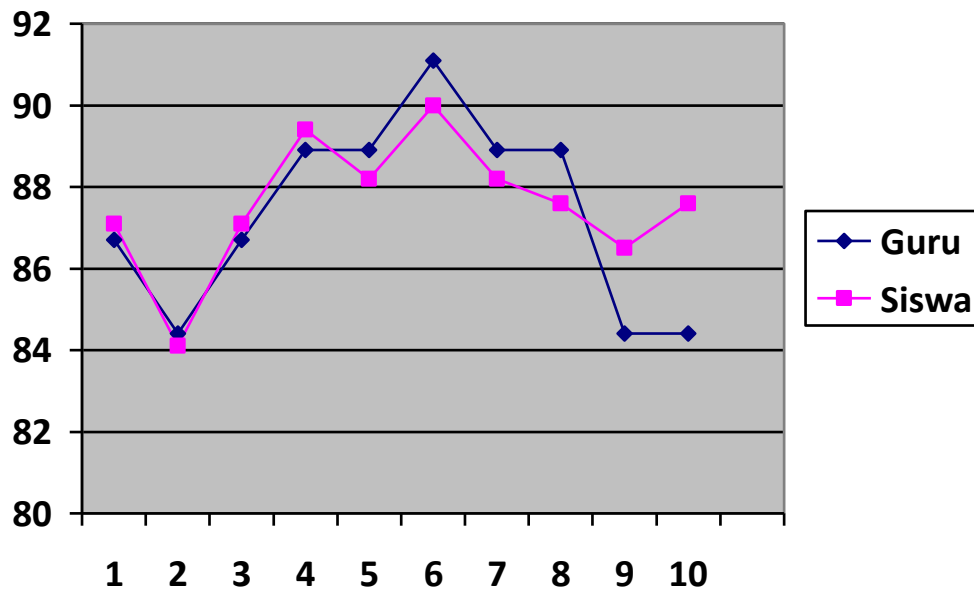


Figure 1 Media Feasibility Diagram

In this digital era of learning 4.0, elementary school students are interested in using technology in the learning process, specifically interactive multimedia. This finding aligns with (Kusumawati et al., 2021), which state that children will be more focused and interested in learning if the teacher can include learning media with pictures and sounds as their visual complements. This statement is similar to Piaget (Santrock, 2012), which expresses that the ten-year-old phase, fifth-grader cognitive development, is in the concrete operational age category, where students ask concrete objects they could access using the five senses to process the new knowledge. Piaget outlines 3 phase processes that students go through in gaining knowledge (Ibda, 2015); they are a scheme which means students have received initial information about science to digest and put together in the assimilation process to accommodate new understanding. If the teacher does not use concrete objects for students in this concrete operational phase, it will usually cause an unbalanced development process. Because in the formal operational phase, (Ilham, 2020) children will have limited imagination to describe a knowledge that asks them to explain something abstract.

Teachers can use interactive multimedia to give new nuances in overcoming the boredom of fifth graders, which usually finds teacher centers leads the learning process. Additionally, merging images, sounds, and videos allows students to access the material independently. The teacher only facilitates students to understand the context of the material through the developed Google site-based interactive multimedia.

(Setyawan, 2019) describes the Google site as media that teachers can integrate websites and Google as teaching media. When implementing the Google site media in the learning process, students can access it via smartphones and internet credit. This Google site media is website-based, combining video and images, and it can be accessed by the user anytime, anywhere, and any material the administrator has provided.

Table 4 Multimedia capabilities to understand and remember learning material

Respondent	Percentage of Feasibility	Description
Teacher	90,0%	Very Feasible
Student	91,1 %	Very Feasible

Tables 1 and 2 explain that the highest teacher response is in statement 6, in which interactive multimedia can help students to remember the material with a 90% score. At the same time, the student's answers scored this statement around 91.1%. Using Google site media will significantly assist teachers in conveying the material process. Thematic learning on maintaining health is a combination of 3 subjects in one lesson. The multimedia Google site is combined visual, audio, and audio-visual media to help the teacher conveys three subjects on the importance of maintaining health. This multimedia positively influences students in understanding and remembering learning material. Mawaddah et al. (2019) developed PowerPoint-based media to help teachers deliver science material which can help students remember the material with an average result of product feasibility in motivating students to understand and remember the material at 92.42%.

Table 5. Google Sites can increase enthusiasm and attract Students to Learning.

Respondent	Percentage of Feasibility	Description
Teacher	88,9%	Very Feasible
Student	88,8%	Very Feasible

The teacher and students' response on the attractiveness and increasing enthusiasm and students independently access statement explains that is only 1% to the statement, where the teacher's response is 88.9%, and students' response is 88.8 %. This positive response is similar to (Kusumawati et al., 2021), finding that multimedia is a tool teachers can use to increase student motivation in the learning process. Learning becomes more interesting since it enables students to access the learning activities they need to achieve first independently. Multimedia Google sites can also develop conceptual mastery and critical thinking skills. As a result, the learning can run appropriately with students' enthusiasm to make the learning process more effective and exciting. The Google site multimedia provides opportunities for students to observe videos, images, and audio in the learning process where the time is more flexible. (Sevtia et al., 2022).

Found that multimedia can attract students' attention in the learning process because it can make students develop their imagination through animations that are not monotonous. Using multimedia in the learning process can make students construct and increase enthusiasm for learning (Widyaningsih & Ganing, 2021). Success is something process learning cannot be separated from teachers/educators and school facilities just. However, the role of the media in it also significantly affects the process of learning to teach at school because the tools or educational media are an int part regal for the support of the educational process at school (Siti Rhomadhoni, 2022).

Table 5 The Multimedia suitability as a source of learning media

Respondent	Percentage of Feasibility	Description
Teacher	87,1%	Very Feasible
Student	86,7 %	Very Feasible

At the point of multimedia conformity for learning media sources through a survey, teachers gave 87.1% of feasibility, and students granted 86.7%. As an educator, a teacher requires integrity and commitment in hosting the class. All media used in the learning process obligates the suitability of the curriculum, syllabus, annual program, and semester program. The learning device was scrutinized in developing the multimedia, and the developed multimedia gains feasible to be implemented in the learning process for teachers and students.

They are learning 4.0 aims to make students gain knowledge and acquire soft skills in applying technology. Widyarningsih & Ganing (2021) Hartiyani and Ghufron (2020) Found that multimedia combines two or more teaching media into one, used to convey messages to a group. The fifth-grader needs analysis defines that the fifth-grader demands multimedia to acknowledge the discussed material. Setyawan, B. (2019) explained that through this development activity, it is hoped to provide positive internet content. Based on Setyawan's research on the results of expert tests by teachers who are certified educators and data from field test results, it was found that the Google site web media was accepted and suitable as a classical guidance medium.

SIMPULAN

This study evaluates the validity and feasibility of interactive multimedia Google sites for fifth-grade elementary school students, where combining three subjects in one meeting on learning four themes 4 discussing health is very important. Subjects in this theme include PPKn, Social Studies, and Indonesian. This study evaluates the material to meet the needs and abilities of students in each subject through a feasibility test validated by media experts, material experts, and individual or user trials. The validation results show that the multimedia can be categorized as interactive multimedia.

Furthermore, the feasibility test states that the media developed is very feasible to be used in the teaching and learning process. Even though the feasibility of teaching media is in the very relevant category, it does not guarantee that it can improve all students' learning achievement. Because sometimes interesting teaching materials still have a chance of failing to improve student achievement abilities. However, what is certain is that engaging in teaching media can increase student learning enthusiasm. This research is expected to help add reference studies that other researchers can use in the future.

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