

The Effect of the Use of the Kinemaster Application on the Learning Outcomes of Information and Communication Technology

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ABSTRACT

Background. This research is motivated by the need to improve the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D of Madrasah Tsanawiyah Negeri Pangkajene. The use of innovative learning media, such as Kinemaster, is expected to have a positive influence on students' understanding of Information and Communication Technology (ICT) learning.

Purpose. The purpose of this study is to test the influence of the use of Kinemaster on the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D of Madrasah Tsanawiyah Negeri Pangkajene.

Method. This study uses a quantitative method with an experimental type of research. The population of this study is all students of class VII.D Madrasah Tsanawiyah Negeri Pangkajene, with samples taken from the same class. The independent variable is the use of Kinemaster (x) and the bound variable is the learning outcome of the Information and Communication Technology (ICT) student (y). Data was collected through observation and documentation, then analyzed using the mean formula.

Results. The results showed that the average score of learning outcomes with the use of Kinemaster ($X = 85.26$) was higher than the value before using Kinemaster ($Y = 69.47$). This shows that there is a positive influence of the use of Kinemaster on the learning outcomes of Information and Communication Technology (ICT) students.

Conclusion. From this study, it can be concluded that the use of Kinemaster has a positive effect on improving the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D of Madrasah Tsanawiyah Negeri Pangkajene, in accordance with the hypothesis proposed.

KEYWORDS

Apps, Kinemaster, Learning Outcomes

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INTRODUCTION

Education is a means or bridge for humans to develop their potential through the learning process obtained. As is known, it is stated in the 1945 Constitution article 31 Paragraph 1 which states that: "every citizen has the right to education". So, it is clear that education is the right of every individual to get it. With the existence of education, it is hoped that.



Education plays a fundamental role in developing human potential, intellectual capacity, character, and the competencies required to participate meaningfully in society. In Indonesia, access to education is constitutionally guaranteed, as Article 31(1) of the 1945 Constitution states that every citizen has the right to education. This constitutional mandate positions education not merely as an institutional service but as a fundamental right that must support the development of knowledgeable, skilled, responsible, and competitive citizens. The same principle is reinforced by Law No. 20 of 2003 on the National Education System, which defines education as a conscious and planned effort to create learning conditions that enable students to actively develop their spiritual, intellectual, personal, and practical potential. Therefore, the quality of education depends not only on access to schooling but also on the effectiveness of the learning processes experienced by students (Republic of Indonesia, 1945; Republic of Indonesia, 2003).

The rapid development of digital technology has significantly transformed the educational environment and changed how teachers and students access, produce, communicate, and interact with knowledge. Digital technology provides opportunities to expand access to learning resources, diversify instructional strategies, and create more flexible learning experiences. However, technology does not automatically improve educational quality simply because it is introduced into the classroom. Its effectiveness depends on pedagogical relevance, equitable access, teacher competence, instructional design, and alignment with learning objectives. UNESCO emphasizes that educational technology should be treated as a tool for solving specific educational problems rather than as an end in itself, while research on digital technologies similarly highlights their potential to facilitate interactive, accessible, and learner-centered educational environments when appropriately integrated into teaching practices (UNESCO, 2023; Haleem et al., 2022).

Learning media represent one of the most important dimensions of technology integration because they mediate the relationship between instructional content, teachers, and learners. Effective media can transform abstract or complex information into more concrete representations by combining verbal explanations with relevant visual elements. From the perspective of multimedia learning theory, students can learn more effectively from appropriately designed combinations of words and pictures than from words alone because information can be processed through complementary verbal and visual channels. This advantage, however, depends strongly on instructional design; excessive animation, irrelevant decoration, redundant information, or poorly organized audiovisual elements may instead increase cognitive load and distract learners from essential content (Mayer, 2021). Educational videos should therefore be concise, focused, visually coherent, and designed to direct learners' attention toward important information rather than merely provide entertainment (Brame, 2016). A systematic review of 105 studies involving 7,776 students further demonstrated that video can positively contribute to learning, particularly when it complements rather than merely replaces existing instructional practices (Noetel et al., 2021).

The pedagogical value of instructional video is consequently determined more by how the medium is designed and used than by the presence of technology itself. Segmenting information into manageable units and providing learners with appropriate control over the pace of presentation can support cognitive processing and comprehension (Fiorella & Mayer, 2018). Large-scale evidence on educational video engagement also shows that production choices, presentation styles, and video duration influence how long learners remain engaged with instructional content (Guo et al., 2014). Visual signaling, segmentation, and the removal of irrelevant information can further reduce unnecessary cognitive processing and facilitate learning from educational videos (Ibrahim et al., 2012). Student engagement with video is also shaped by the learning context and by whether learners actively use video to clarify, review, search for, and reflect on information rather than

consume it passively (Seo et al., 2021). These findings suggest that audiovisual learning media should be intentionally designed around pedagogical objectives and students' cognitive needs.

This issue is particularly relevant to Information and Communication Technology (ICT) learning, where students are expected not only to memorize concepts but also to understand processes, recognize interfaces, observe procedures, and apply technological knowledge. Preliminary observations at Madrasah Tsanawiyah Negeri Pangkajene indicated that classroom instruction remained strongly dependent on student textbooks, teacher books, and conventional explanations. Such practices were not inherently ineffective, but their limited variation appeared insufficient to sustain the attention and active involvement of some students. Several students showed limited enthusiasm during instruction, experienced difficulty maintaining focus when teachers explained the material, and had difficulty understanding some ICT concepts and procedures. Learning achievement also indicated that a considerable proportion of students had not yet demonstrated the expected level of mastery. These conditions reveal a pedagogical gap between the visual-procedural characteristics of ICT content and the predominantly conventional ways in which that content was presented.

KineMaster-based instructional video offers one possible response to this pedagogical problem because it enables teachers to organize learning content through combinations of visual demonstrations, text, images, narration, audio, animation, and sequential explanations. The educational value of KineMaster, however, should not be attributed simply to the application itself. Its potential lies in how teachers use its features to transform instructional content into structured audiovisual representations that help students observe processes and connect conceptual explanations with concrete examples. Research has demonstrated that KineMaster-based video can be developed into valid and practical instructional media that attract learners' interest and facilitate understanding (Erita et al., 2022). Experimental evidence has also shown substantial differences between students' learning outcomes before and after exposure to KineMaster-assisted instructional videos (Khasanah et al., 2021). Similar findings indicate that interactive KineMaster video can positively contribute to student achievement when integrated into thematic learning activities (Widiya & Reinita, 2023).

Empirical findings across different educational contexts further strengthen the potential of KineMaster-based audiovisual learning, although they also demonstrate that its effectiveness is context-dependent. Ernawati and Atmazaki (2022) found that KineMaster learning videos contributed positively to students' writing outcomes in secondary education, indicating that the medium can support learning beyond elementary-level contexts. Sari et al. (2022) reported improvements in both learning motivation and achievement through the implementation of KineMaster learning videos, suggesting a possible relationship between attractive audiovisual presentation, learner engagement, and academic outcomes. More recent research at the junior secondary level also found meaningful improvement in students' learning outcomes after the use of KineMaster-based audiovisual media, although the magnitude of improvement was moderate rather than universally high (Syarafah et al., 2024). These findings caution against assuming that KineMaster automatically produces better achievement; learning effectiveness remains dependent on content quality, teacher implementation, learner characteristics, and alignment between media design and instructional objectives.

The literature reviewed in this study reveals an important research gap. Previous investigations have predominantly examined KineMaster in elementary thematic learning, language learning, Islamic religious education, and other subject-specific contexts, whereas empirical evidence concerning its application to ICT learning in the madrasah secondary-school context

remains comparatively limited. ICT subjects possess distinctive characteristics because students frequently need to understand both conceptual knowledge and visually demonstrated technological processes. The present study therefore extends previous research by examining KineMaster not merely as a video-editing application but as a pedagogically designed audiovisual medium intended to address specific problems of attention, understanding, and learning achievement in ICT instruction. The study aims to determine the effectiveness of KineMaster-based learning media in improving the ICT learning outcomes of students at Madrasah Tsanawiyah Negeri Pangkajene. The findings are expected to provide empirical evidence regarding whether technology-supported audiovisual instruction can offer a meaningful improvement over predominantly conventional learning practices in this specific educational context.

RESEARCH METHODOLOGY

Research Approach and Type

This study uses a quantitative method. According to Sugiyono (2013), quantitative data is a research method based on *posotovistic* (concrete data). This study uses a type of experimental research that aims to test the influence of learning media on the learning outcomes of grade VII students of Mts. Negeri 2 Pangkajene in the subject of Information and Communication Technology (ICT) (X). The independent variable in this study is the influence of the use of *the Kinemaster application* while the bound variable is the learning outcomes of students in class Mts. Negeri 2 Pangkajene (Y).

Research Variables

Variables can be divided into two types, as follows:

The effect of using *the Kinemaster application* in the teaching and learning process as an independent variable (X)

Student learning outcomes in Information and Communication Technology (ICT) as a bound variable (Y)

Population and Sample

Population

The population in this study is all students of grade VII Mts. Negeri 2 Pangkajene which totals 228 students. To get a clear picture of the state of the population of this study, it can be seen in the following table.

Table 1. Population Status

No	Class	Sum
1	VII.A	38
2	VII.B	38
3	VII.C	37
4	VII.D	38
5	VII.E	38
6	VII.F	39
	Sum	228

Sample

The sampling in this study was 15% of the existing population at random, because the number of population exceeded 100 i.e. 228 students. Meaning $228 \times 15\% = 35$, For more details in table 2 below.

Table 2. Sample Condition

No	Class	Population	Sample (15%)
1.	VII.A	38	6
2.	VII.B	38	6
3.	VII.C	37	5
4	VII.D	38	6
5	VII.E	38	6
6	VII.F	39	6
	Sum	228	35

Data Collection Techniques**Observation**

Observation is a technique or method of data collection by observing ongoing activities. This method will be used in research that aims to directly observe learning in the classroom.

Test

The technique was used to measure the learning outcomes of Indonesian subjects for students in grade VII of Madrasah Tsanawiyah Negeri Pangkajene. The test in question is to provide questions in the form of multiple choice as many as 30 questions.

Documentation

The documentation technique was used to obtain data on the state of students who actively participated in the teaching and learning process and the number of grade VII students of Madrasah Tsanawiyah Negeri Pangkajene.

RESULT AND DISCUSSION

This study was conducted with the aim of finding out whether there was an effect of the use of Kinemaster media on the Indonesian language learning outcomes of students in grade VII.D Madrasah Tsanawiyah Negeri Pangkajene by taking the population of all grades VII and in determining the sample in this study using a purposive cluster random method where each class representative who was taken 15% each became a sample and then divided into two groups where students who had an odd sequence number as an experimental group and students who have an even sequence number as the control group. Based on the results obtained from the results of the study which showed a comparison of Indonesian language learning outcomes of grade VII.D students of Madrasah Tsanawiyah Negeri Pangkajene, namely: $M_x = 85.263 > M_y = 69.473$. who are taught using Kinemaster media are better than students who are taught without Kinemaster media. The learning outcomes of these students can be seen from the acquisition of student scores in the final test.

The results of the experimental group that used Kinemaster learning media obtained higher scores than the control group that did not use Kinemaster learning media. This can be seen from the results of data analysis which showed that the average value of the experimental group ($M_x=85.263$) was greater than the value of the control group ($M_y=69.473$) and the empirical value was greater than the table value, which was 6.362 greater than 2.719 at a significant level of 5% and 6.362 greater than 2,719 at a significance level of 1% with a DB of 36. The results of the research by hypothesis testing through data analysis techniques obtained the average value of competency in Indonesian language learning outcomes with google classroom. So it can be concluded that the alternative hypothesis that says: there is an influence of the use of Kinemaster media on the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D Madrasah

Tsanawiyah Negeri Pangkajene "Accepted". The consequence of the recipient, then the null hypothesis that states: There is no effect of the use of Google classroom media on the Indonesian language learning outcomes of grade XI students of SMK Negeri 2 Sidenreng rappang "Rejected".

Thus, it can be concluded that the use of Kinemaster can have a positive influence on the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D of Madrasah Tsanawiyah Negeri Pangkajene. This shows that with the use of Kinemaster as a media tool in learning, the learning outcomes of students are quite satisfactory compared to the learning outcomes that do not use Kinemaster as a media tool in the process of learning activities.

CONCLUSION

Based on the description and assessment results, the researcher can conclude that the use of Kinemaster in the learning process has an influence on the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D Madrasah Tsanawiyah Negeri Pangkajene. This is because by using Kinemaster, teachers and students can carry out the teaching and learning process more easily and convey information to students in a good and interesting way. Based on the results of the study in accordance with testing the hypothesis through data analysis, the average value was obtained namely $M_x = 85.263 > M_y = 69.473$. This means that the difference in average scores shows the influence of the use of Kinemaster on the learning outcomes of Information and Communication Technology (ICT) students in grade VII.D of Madrasah Tsanawiyah Negeri Pangkajene. The results of the analysis with the final test showed that students who were taught using Kinemaster had a positive impact compared to students who were taught using conventional learning (package books).

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Methodology; Data curation; Formal analysis; Investigation; Visualization; Writing – original draft.

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