Jurnal Cakrawala Pendas
Vol. 11 No. 2, April 2025
DOI: http://dx.doi.org/10.31949/jcp.v11i2.13273

p-ISSN: 2442-7470
e-ISSN: 2579-4442

THE EFFECT OF SMARTPHONE-BASED VIDEO MEDIA IN SCIENCE AND SCIENCE LEARNING USING EXPERIMENTAL METHODS ON THE LEARNING INTERESTS OF ELEMENTARY SCHOOL STUDENTS

Yusdin Bin. M. Gagaramusu[1*], Azizah[2] , Asriani[3], Raodatul Jannah[4]
[1,2,3,4]Universitas Tadulako
[1]yusdingagaramusu@gmail.com

Abstract
The purpose of this study is to determine the Effect of the Use of Smartphone-Based Video Media in IPAS Learning on the Learning Interest of Elementary School Students. This study used a quantitative quasi-experimental design with a type of Non-equivalent Control Group which involved two classes given different treatments, namely the experimental group and the control group. The subjects of this study are 56 students of class IV A & Class IV B B SDN 22 Palu. Data collection was carried out using research instruments in the form of questionnaires, observations and interviews. Data analysis used hypothesis tests through paired test samples t-test and prerequisite tests, namely normality tests and homogeneity tests assisted by the SPSS Statistics version 27 program. Based on the results of this study, it shows that the significance of 0.001 < 0.05 is accepted, so the hypothesis Ha is accepted and Ho is rejected, thus the Use of Smartphone-Based Video Media in Social Science Learning using the Experimental Method has an effect in increasing the learning interest of elementary school students. Keywords: Smartphone-based Video Media, Experimental methods, learning interests.
Keywords: *Smartphone-based video media; experiments; learning interest*

Abstrak
Tujuan penelitian ini untuk mengetahui Pengaruh Penggunaan Media Video Berbasis Smartphone dalam Pembelajaran IPAS terhadap Minat Belajar Siswa Sekolah Dasar. Penelitian ini menggunakan desain kuasi-eksperimental kuantitatif dengan jenis Non-equivalent Control Group yang melibatkan dua kelas diberikan perlakuan yang berbeda yaitu kelompok eksperimen dan kelompok kontrol. Subyek penelitian ini yaitu siswa kelas IV A & Kelas IV B SDN 22 Palu yang berjumlah 56 orang. Pengambilan data dilakukan menggunakan instrumen penelitian berupa lembar angket, observasi dan wawancara. Analisis data menggunakan uji hipotesis melalui uji paired sampel t-test dan uji prasyarat yaitu uji normalitas dan uji homogenitas berbantuan program SPSS Statistics versi 27. Berdasarkan hasil penelitian ini menunjukkan niai signifikansi 0,001< 0,05 maka hipotesis Ha diterima dan Ho ditolak, dengan demikian Penggunaan Media Video Berbasis Smartphone dalam Pembelajaran IPAS menggunakan Metode Eksperimen berpengaruh dalam meningkatkan minat belajar siswa sekolah dasar.
Kata Kunci: Media Video berbasis *smartphone;* Metode eksperimen; minat belajar

Received	: 2025-02-28	Approved	: 2025-04-15
Reviesed	: 2025-04-11	Published	: 2025-04-30

Introduction

Learning is essentially a process, namely the process of regulating, organizing the environment around students so that they can grow and encourage students to carry out the learning process. According to Law of the Republic of Indonesia Number 20 of 2003 about the National Education System, learning is the process of interaction between educators and students as well as learning resources that take place in a learning environment. Learning is an effort made deliberately by educators to convey knowledge to students, so that students can carry out learning activities with optimal results. Learning is a process of change that is

realized and deliberate, referring to systemic activities to change for the better of an individual (Muliyah et al., 2020). According to (Emira Hayatina et al., 2023)), Learning is a process that is carried out to assist students in acquiring the necessary knowledge, skills, and attitudes. Meanwhile, according to (Samsinar, 2019) Learning is the process of interaction between students and educators and learning resources in a learning environment to achieve certain educational goals. In the learning process, the teacher will manage the entire series of learning activities so that learning objectives can be achieved, including the learning process and outcomes in the form of teaching impacts. In order for the goal to be achieved properly, in the learning process, it is necessary to have an interest in learning in students. Interest in learning is basically the acceptance of a relationship between oneself and something outside oneself. The stronger or closer the relationship, the greater the interest (Neliwati et al., 2023).

Interest in learning is something important in the smooth learning process. Students who have a high interest in learning in the learning process can support the teaching and learning process to be better, and vice versa, if the student's interest in learning is low, the quality of learning will decrease and will affect learning outcomes. (Puspitasari Aryani, 2023) explains that interest is a high tendency of the heart towards something. Interest is a trait that is relatively fixed in a person. Interest is a constant interest or tendency to pay attention to or be involved in something because it realizes its importance or value. Obtaining optimal learning scores is not only manifested by students' learning interests but can be influenced by the learning media used in the learning process.

The use of media in the learning process is very important in improving the quality of student learning. In recent years, the use of technology-based media such as smartphones has become very popular in the field of education. One example of the media used is video. According to the Great Dictionary of the Indonesian Language, video is a recording of a live image or television program that will be broadcast on television, in other words, a video is a moving image accompanied by sound. (Sri Hariati et al., 2020) state that video is an image in a frame, where frame after frame is projected through the projector lens mechanically so that a clear image is visible on the screen.

The use of smartphones as a learning medium according to (Firdaningrum et al., 2021) which states that by using smartphones as a learning medium, (1) it provides more in- depth learning opportunities, (2) students can develop learning through searching for information from the internet, (3) practicing their skills in carrying out practicum because of the principle of mobility owned by smartphones. (4) It is further said that by using smartphones students are able to build their competencies in a dynamic way.

In the context of learning IPAS (Natural and Social Sciences), the use of smartphone-based video media can help students in understanding concepts, especially complex and abstract science. Science is a subject that requires visualization and active interaction to understand the concept. The use of smartphone-based video media can help students understand the concept of IPAS more effectively. Natural and Social Sciences (IPAS) is a combination of natural sciences and social sciences. Scientific learning is a context related to nature and social conditions (Suhelayanti et al., 2023). In general, science is defined as a combination of various knowledge that is arranged logically and systematically by taking into account cause and effect (Adnyana et al., 2023). This knowledge encompasses natural knowledge and social knowledge.

The success of learning depends on teacher innovation in determining appropriate and interesting learning methods. The learning method is a presentation technique mastered by

educators in the classroom, both individually and in groups, so that learning materials can be absorbed, understood, and utilized by students properly (Zai et al., 2022).

In the learning process, teachers must use certain methods so that learning can run well, one of the methods that can be used in natural and social Sciences (IPAS) is the experimental method. The experimental method, according to (Awansyah, 2022) is a way of presenting lessons, where students conduct experiments by experiencing something learned for themselves. In the teaching and learning process, students are given the opportunity to learn on their own, explore the environment based on the experiments carried out, observe an object or a phenomenon. The experimental method is one of many teaching methods where students carry out an experiment about something, see the process and write down the results of the experiment, then the results of the observation are presented in class and evaluated by the educator (Mulianati et al., 2022).

Based on initial observations and interviews with grade IV A students conducted by researchers on the science learning process at SD Inpres 3 Tondo in May 2024, information was obtained that the learning interest of grade IV students was still lacking in the learning process, the educator stated that learning was still centered on the educator and used the lecture method then students listened through the PPT that was displayed, After that, the teacher gives questions to the students, then the students are given the opportunity to answer. Educators have not optimally implemented learning models such as experimental method during the learning process which results in a lack of active participation of students in the learning process.

The lack of interest of students can be seen from learning activities that tend to be less focused, during learning some students seem to pay less attention to explanations, engrossed in playing with friends next to them, bored so that fun learning is not created. This is in accordance with the results of the interview of one of the students who said "I am not very interested in learning, the learning is boring". Based on these observations and interviews, we can conclude that students are less interested in participating in the learning process in the classroom. So, these problems can be solved with the right strategy, namely by applying a smartphone-based video media-assisted experimental method.

The experimental method is a learning method in which students experiment or try something and observe the process (Kalangi & Zakwandi, 2023). The purpose of the experiment method is for students to be able to design, prepare, implement, report, prove and draw conclusions from various facts and information obtained when they conduct their own experiments. The advantages of the experimental method according to (Ma'viyah, 2021) are : (1) This experimental method can make students or students more confident in the truth or conclusions based on their own experiments, rather than just receiving explanations from teachers or books, (2) Students or students can develop an attitude to conduct or conduct exploratory studies or explore science and technology. The existence of an attitude demanded of a scientist can be applied in this research method, (3) By using this method, human beings will be awakened who can bring various new breakthroughs with discoveries as a result of experiments that are expected to be beneficial to human welfare.

Smartphone-based video media is a medium used to display moving images or video and sound using a mobile phone or *smartphone.* According to (Firman & Bancong, 2024) The advantages of smartphone-based video media are : (1) Can be used repeatedly, regardless of distance and time so that it becomes more effective, (2) Makes students motivated in learning so that learning is not boring, (3) Helps students understand learning materials without being tied to other teaching materials, can take students to various places without taking them

directly to the place (4) Learning video media can display small and dangerous things directly, (5) Learning video media can show activities in other places or past events, things displayed are informative and reliable, (6) Can be used in large, small and individual groups, (7) Provide new learning experiences to students and the message conveyed through learning video media is conveyed comprehensively to students.

Based on the existing background, the researcher is interested in conducting research with the aim of finding out "The Effect of the Use of Smartphone-Based Video Media in Social Science Learning Using Experimental Methods on the Learning Interest of Grade IV Students of SDN 22 Palu".

Research Methods

This research was carried out in grade IV in the subject Natural and Social Sciences (IPAS) at SDN 22 Palu which is located at Palu City, Province Central Sulawesi. The research used is a quantitative research using a *quasi- experimental design* (quasi-experimental) with the type of *Non-equivalent Control Group* involving two classes that are given different treatments, namely the experimental group and the control group (Hastjarjo, 2019).

Table 1. Pre-Test and Post-Test Research Design of the Group

Class	Pretest	Treatment	Posttest
Eksperimen	01	X1	02
Control	01	X1	02

The population in this study is grade IV students of SDN 22 Palu as an experimental class with a total of 28 IVA students and SDN 22 Palu students as a control class with a total of 28 IV B students. So that the total population is 56 people. The results of the data can be seen in the table below:

Table 2. Research Population Table

Class	Number of student
Eksperimen	28
Control	28
Sum	**56**

This research was held Pre-Test and Post-Test in the experimental class and control class using a student learning interest questionnaire that had been tested for validity and reality. The reliability testing of the research instrument was carried out through the *Alpha-Cronbach* method. Inferential analysis includes normality test, homogeneity test and hypothesis test with the help of *the SPSS* version 27 program.

The normality test was carried out with the help of *the SPSS version 27* program using the Lilliefors *(*Kolmogrov-Smirnov*) test*. With the decision-making criteria, namely, at a significant level of α=0.05, if the significance obtained is > α, then the sample comes from a normally distributed population. Meanwhile, if the significance obtained < α, then the sample does not come from a normally distributed population.

The homogeneity test uses *the levene* test or *the barley* test with the help of *the SPSS version* 27 program. The basis for decision-making is significantly α = 0.05: a). If the

significance obtained > α, then the data come from a homogeneous population. If the significance obtained < α, then the data come from a non-homogeneous population.

Hypothesis test or t-test using the help of *the SPSS* 27 program with the following significant levels: a). H_a : $\mu_o < \mu_a$: There is an effect of the use of smartphone-based video media using an experimental learning model on the learning interest of grade IV students of SDN 22 Palu, b). H_o : $\mu_o < \mu_a$: There is no effect of the use of smartphone-based video media using an experimental learning model on the learning interest of grade IV students of SDN 22 Palu.

Results and Discussion

This research was carried out at Palu City, Central Sulawesi Province involved 56 students of grade IV of SDN 22 Palu consisting of 28 people in class IV A as an experimental class and 28 people in class IV B as a control class. This study aims to find out whether there is an influence of the use of smartphone-based video media in learning science using the experimental method on the learning interest of grade IV students of primary school. The data collected during this study were *pre-test* data and *post-test data* to determine students' learning interest in learning science and science both in the experimental class and the control class through a questionnaire. The data analyzed to test the hypothesis were *pre-test* (before treatment) and *post-test* (after treatment).

Data analysis showed that the students' learning interest in the experimental class before being given the treatment or *Pre-Test* had an average score of 67.32. *The Pre-Test* score in the control class had an average score of 67.32. The experimental class was given treatment using smartphone-based video media with an experimental method in learning social science and style material. The treatment was carried out once in which the students were divided into several groups at random, then asked to watch a learning video via mobile phone after which they conducted an experiment according to the steps they watched in the video. The Post-Test questionnaire showed interest in social studies subjects after being given the average score of students reaching 69.86. Meanwhile, the learning process in the control class is carried out once without using smartphone-based video media. The learning method used in the control class is the lecture method using PPT media. Students only listen to the teacher explain and read the material through PPT. The *Post-Test questionnaire* of students' learning Interest in natural and social sciences (IPAS) subjects was distributed after treatment, with an average score of 69.86.

Normality and homogeneity testing was carried out first on both samples before determining the effect of the use of smartphone-based video media in learning science using an experimental method on the learning interests of grade IV students of SDN 22 Palu. The normality test in this study is to find out whether the data used is normally distributed or abnormal because good data is data that has a normal distribution. The normality test used in this study uses *the Kolmogorof Smirnov formula.* In this normality test, the researcher used the help of SPPS version 27. The basis for decision-making in the normality test is that if the significant value (Sig) > α = 0.05, the data is said to be normal. The table of normality and homogeneity test results is as follows:

Table 3. Normality and Homogeneity Test Results

Learning Interest	Test	Significance
Experimental class pretest and control class pretest	Normality	0,99
	Homogeneity	0,500

Based on the table above, results of the normality test it was stated that the significant value > 0.05, then the data met the assumption of normality. So that dependent and independent variables have a normal distribution and good data has a normal or near-normal data distribution. While The results of the homogeneity test showed that the significant value (sig) of the pre- test of the experimental class and the control class was 0.500 > 0.05, so the data met data homogeneity assumption. In conclusion, the learning interest data obtained by the researcher is homogeneous data.

Hypothesis testing is used to determine the influence of variable x on variable y, the research data tested on the hypothesis are the *Pre-Test* and *Post-Test* values of the experimental class. This study uses the analysis *of Paired Sample T-Test* through the SPSS version 27 program. The criteria for rejection and acceptance of the hypothesis for the t-test are if the significance value > 0.05 then Ho is accepted and Ha is rejected, on the other hand, if the significance value < 0.05 then Ho is rejected and Ha is accepted. The hypothesis was carried out at a significance level of 5% = 0.05. The results of the Paired *Sample T-test analysis* are as follows:

Table 4. Hypothesis Test Results

Learning Interest	Sig (2-Tailed)	*Level Of Significant*
Pre-Test and Post-Test of experimental	0,001	0,05

Based on the results of the t-test, a significant value (sig. 2-tailed) of 0.001 < 0.05 was obtained so that it can be concluded that the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted. The results can be concluded that the use of Smartphone-based Video Media in learning science using the experimental method has an influence on the learning interest of grade IV students of SDN 22 Palu.

At the time of giving treatment in the experimental class, it was seen that students were more active because students felt more focused and fun so that students were active in asking and answering questions given by the researcher. In addition, when conducting experiments using magnets, students who were previously not enthusiastic about watching videos because they had a kinesthetic learning style became very enthusiastic because they did experiments and all students wanted to be involved in doing experiments directly, this was reinforced by the results of interviews conducted by researchers that they were very happy to participate in learning because they watched videos using mobile phones and conducted direct experiments using magnets on videos that they watch about the Style material. While the learning process in the control class of the researcher uses Power Point (PPT), discusses in groups and does not usesmartphone-based video media. During the learning process, students were less enthusiastic, some of them were playing with their friends next to them, some were bothering their friends, some were busy coloring in their books. In addition, in learning about the Style material delivered by the researcher, students only remember what has been explained and read through the PPT that is displayed.

According to (Azizah et al., 2022) Video media used in learning is able to provide better learning stimulation for students because with video media students can remember learning material longer. In addition, each student has a different learning style, according to (Darma et al., 2024) Learning style is a way that a person prefers to receive and process information.

The learning style is divided into three groups, namely learning by seeing (Visual Learning), learning by hearing (Auditory Learning), learning by doing (Kinesthetic Learning). Meanwhile, according to (Azzahrah Putri et al., 2021) Learning style is a way of describing how everyone learns or everyone focuses on the process and understands difficulties and new information through different perceptions. In this study, it has included Visual learning and Auditory learning styles because students watch learning videos using mobile phones and kinesthetic learning styles because after watching videos students conduct experiments directly. Maximum utilization of learning styles accompanied by high interest and independence in learning can also provide good results in learning. Interest in lessons affects further learning and affects new interests (Heri, 2019).

Based on quantitative analysis, students' interest in learning by giving an initial test is known to have an average score of 67.32. After being given treatment, the final ability of students by providing post-test is known to have an average score of 69.86. This result shows that there is a significant difference in score between the initial test and the final test, this result is supported by the results of the hypothesis test (t-test) with the acquisition of a significant score (0.001) < 0.05, then Ha is accepted and Ho is rejected. In other words, there is a significant difference in students' learning interest before and after being treated with the use of Smartphone-based video media in learning IPAS using an experimental method in grade IV students of SDN 22 Palu.

The use of smartphone-based video media that contains Style learning materials using the experimental method aims to make learning more meaningful and students understand the material better if they immediately do experiments, students can easily remember the material taught, this can be seen from the results of *the pre-test* which on average has a good score. Relevant learning media is one of the factors that will affect the learning process and the delivery of material that a teacher will deliver to students (Zahwa et al., 2022) According to (Fadia Nurluthfiana et al., 2023) It is very important to use audio-visual media because it can make education more effective to increase students' enthusiasm for learning and in improving students' understanding, interest and learning outcomes.

After the treatment, there was an increase in students' interest in learning during the learning process in the classroom, because the researcher used smartphone-based video media using an experimental method to give a pleasant impression during learning. According to Yunitasari and Hanifah in (Afidati et al., 2022) one of the ways to arouse interest in learning is by displaying various animated videos to make learning interesting. This is in line with Sardiman's opinion (Ernawati et al., 2024) The learning process will run smoothly if accompanied by interest. Learning interests can affect student learning outcomes, so it is important for teachers to create learning that suits the interests and needs of students.

The limitations in this study when used in remote areas are: (1) Internet network, (2) Electricity, (3) *Smartphone.* The researcher's suggestion for teachers or readers who want to use this research is to download the learning videos so that they can be displayed offline without using the internet network and also make printed teaching materials containing the materials and experimental steps in the learning videos.

The use of smartphone-based video media in learning IPAS using an experimental method on the learning interests of grade IV students of SDN 22 Palu is supported by the results of previous research conducted by (Sari et al., 2022) with the research title "The Effect of the Use of Video Learning Media on the Learning Interest of Grade VII Students in Social Sciences Subjects in the Independent Curriculum at SMPN 5 Solok City". The results of the study show that the use of video learning media has a significant effect on students' learning interests. In addition, (Asiva Noor Rachmayani & Fasyi, 2015) with the research title "The Effect of the Use of Video Media on Science Learning Outcomes of Grade IV Students of SD Negeri Ngoto Bantul Yogyakarta". Based on the results of the study, the use of video media has a positive effect on student learning outcomes. This is evidenced by the results of the post-test science learning in the experimental class of 82.36 and the control class of 76.18.

This research is also supported by (Beno et al., 2022) with the research title "The Effect of Video-Based Media Use on Motivation and Mathematics Learning Outcomes of Grade V Elementary School Students". Based on the results of the study, the use of video-based media has the influence of video-based media on learning motivation and student learning outcomes. This is evidenced by the results of the study obtained a sigificiation value of 0.000 (p=< 0.05). The average motivation of the experimental class (68.35) was higher than that of the control class (60.39).

Conclusion

Based on the results of research that has been conducted at SDN 22 Palu, it can be concluded that there is an influence of the use of smartphone-based video media in learning science science using an experimental method on the learning interest of grade IV students of SDN 22 Palu. This is evidenced by the results of hypothesis testing using the *paired sample t-test* at a significance level of 5% (0.05) obtained a significant value of 0.001. Because the significant value of the T-test < 0.05 (0.001 < 0.05), Ha was accepted and Ho was rejected. The results of data analysis in this study show that learning in the experimental classroom using smartphone-based video media with the experimental method has a higher influence on students' learning interest. Suggestions for further research can develop the use of smartphone-based video media in increasing the learning interest of elementary school students. The use of appropriate media and methods in learning can increase student participation and involvement so that the student learning process looks active.

References

Adnyana, Surya, K., Yudaparmita, & Arya, G. N. (2023). Peningkatan Minat Belajar IPAS Berbantuan Media Gambar Pada Siswa Sekolah Dasar. *Edukasi: Jurnal Pendidikan Dasar*, *4*(1), 61. https://doi.org/10.55115/edukasi.v4i1.3023

Afidati, N. I. A., Haning Hasbiyati, & Diah Sudiarti. (2022). Pengaruh Model Pembelajaran Discovery Learning Dengan Media E-Book Berbasis Smartphone Terhadap Ketuntasan Belajar Siswa. *LENSA (Lentera Sains): Jurnal Pendidikan IPA*, *12*(1), 33–40. https://doi.org/10.24929/lensa.v12i1.192

Asiva Noor Rachmayani, & Fasyi, M. C. Al. (2015). Pengaruh Penggunaan Media Video Terhadap Hasil Belajar Ipa Siswa Kelas IV SD Negeri Ngoto Bantul Yogyakarta. *Basic Education Jurnal elektronik PGSD*, 6.

Awansyah, P. (2022). Penerapan Metode Eksperimen Untuk Meningkatkan Sikap Ilmiah Dan Prestasi Belajar Siswa. *Diadik: Jurnal Ilmiah Teknologi Pendidikan*, *12*(1), 121–230. https://doi.org/10.33369/diadik.v12i1.21390

Azizah, Fatimah, & Nurul. (2022). Pengaruh media audio visual terhadap motivasi belajar ipa siswa kelas v sdn kapopo. *Autentik : Jurnal Pengembangan Pendidikan Dasar*, *6*(1), 9–17.

Azzahrah Putri, R., Magdalena, I., Fauziah, A., & Nur Azizah, F. (2021). Pengaruh Gaya Belajar terhadap Pembelajaran Siswa Sekolah Dasar. *Cerdika: Jurnal Ilmiah Indonesia*, *1*(2), 157–163. https://doi.org/10.59141/cerdika.v1i2.26

Beno, J., Silen, A. ., & Yanti, M. (2022). Pengaruh Penggunaan Media Berbasis Video Terhadap Motivasi Dan Hasil Belajar Matematika Peserta Didik Kelas V Sekolah Dasar. *Braz Dent J.*, *33*(1), 1–12.

Darma, E., Telaumbanua, P., & Harefa, A. R. (2024). 2024, Pages 691-697 Journal of Education Research. *Journal of Education Research*, *5*(1), 691–697.

Emira Hayatina, Ramadhan, & Hindun, H. (2023). Penerapan Model Pembelajaran Berbasis Proyek untuk Membantu Siswa Berpikir Kreatif. *Protasis: Jurnal Bahasa, Sastra, Budaya, dan Pengajarannya*, *2*(2), 43–54. https://doi.org/10.55606/protasis.v2i2.98

Ernawati, E., Raharjo, M., & Rudiansyah, R. (2024). Upaya Peningkatan Minat Belajar Peserta Didik dengan Pembelajaran Berdiferensiasi Berbantuan Paper Mode Quiziz IPAS Kelas IV Sekolah Dasar. *Indonesian Research Journal on Education*, *4*(3), 864–872. https://doi.org/10.31004/irje.v4i3.908

Fadia Nurluthfiana, Erlita Umi Masytoh, Silvia Berliana, Wafna Jannata Ulya, Ahmad Hariyadi, Wawan Shokib Rondli, Erik Aditia Ismaya, & Imaniar Purbasari. (2023). Pentingnya Upaya Meningkatkan Minat Belajar Ips Dengan Menggunakan Media Audiovisual Pada Siswa Sd Kelas Rendah Di Sd Negeri Kunir 1 Dempet Demak. *Prosiding Seminar Nasional Pendidikan, Bahasa, Sastra, Seni, Dan Budaya*, *2*(1), 375–384. https://doi.org/10.55606/mateandrau.v2i1.307

Firdaningrum, A., Rokhmaniyah, R., & Susiani, T. S. (2021). Analisis Penerapan Media Pembelajaran Berbasis Smartphone dalam Pembelajaran Daring Kelas V (Studi Kasus di SD Negeri Podosoko 2 Kecamatan Sawangan Kabupaten Magelang Tahun Ajaran 2020/2021). *Kalam Cendekia: Jurnal Ilmiah Kependidikan*, *9*(3). https://doi.org/10.20961/jkc.v9i3.53558

Firman, S., & Bancong, H. (2024). Studi Literatur: Analisis Penggunaan Media Video pada Mata Pelajaran IPA di SD. *INKUIRI: Jurnal Pendidikan IPA*, *13*(1), 42–52. https://doi.org/10.20961/inkuiri.v13i1.80643

Hastjarjo, T. D. (2019). Rancangan Eksperimen-Kuasi. *Buletin Psikologi*, *27*(2), 187. https://doi.org/10.22146/buletinpsikologi.38619

Heri, T. (2019). Meningkatkan Motivasi Minat Belajar Siswa. *Rausyan Fikr : Jurnal Pemikiran dan Pencerahan*, *15*(1), 59–79. https://doi.org/10.31000/rf.v15i1.1369

Kalangi, V. P., & Zakwandi, R. (2023). Penerapan Metode Pembelajaran Eksperimen untuk Meningkatkan Hasil Belajar Siswa. *PTK: Jurnal Tindakan Kelas*, *3*(2), 266–276. https://doi.org/10.53624/ptk.v3i2.218

Ma'viyah, A. (2021). Metode Eksperimen Dalam Pembelajaran Sains Untuk Anak Usia Dini (Experimental Methods In Science Learning For Early Childhood). *Prosiding Konferensi Integrasi Interkoneksi Islami dan Sains*, *3*, 97–101.

Mulianati, A., Saefudin, A., Saputra, B. R., & Febrianti, H. (2022). *Penerapan Metode Eksperımen Dalam Meningkatkan Hasıl Belajar Sıswa Kelas IV Sekolah Dasar*. *1*(2), 84–90. https://www.ejournal.unma.ac.id/index.php/jipe/article/view/3939

Muliyah, P., Aminatun, D., Nasution, S. S., Hastomo, T., Setiana, Sitepu, S. W., & Tryana. (2020). Peningkatan Kemampuan Pemecahan Masalah Matematis Melalui Model Game Based Learning Berbantuan "Educaplay" Untuk Siswa Kelas Iv Sd. *Journal GEEJ*, *7*(2), 14–52.

Neliwati, N., Siregar, F. T., Siregar, A. A., & Batubara, H. (2023). Upaya Guru Pendidikan Agama Islam Dalam Meningkatkan Minat Belajar Siswa Madrasah Tsanawiyah. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, *4*(2), 297–306. https://doi.org/10.31538/munaddhomah.v4i2.351

Puspitasari Aryani, D. (2023). *Analisis Peran Guru Terhadap Minat Belajar*.

Samsinar, S. (2019). Urgensi Learning Resources (Sumber Belajar). *Jurnal Kependidikan*, *13*, 194–205.

Sari, A. P., Sari, Y. N., Syafwita, H., & Setiawati, M. (2022). Pengaruh Penggunaan Media Pembelajaran Vidio Terhadap Minat Belajar Siswa Kelas VII Pada Mata Pelajaran IPS Dalam Kurikulum Merdeka Di SMPN 5 Kota Solok. *Jurnal Pendidikan Indonesia : Teori, Penelitian, dan Inovasi*, *2*(5). https://doi.org/10.59818/jpi.v2i5.336

Sri Hariati, P. N., Rohanita, L., & Safitri, I. (2020). Pengaruh Penggunaan Media Video Animasi Terhadap Respon Siswa Dalam Pembelajaran Matematika Pada Materi Operasi Bilangan Bulat. *Jurnal Pembelajaran Dan Matematika Sigma (Jpms)*, *6*(1), 18–22. https://doi.org/10.36987/jpms.v6i1.1657

Suhelayanti, Z, S., & Rahmawati, I. (2023). Pembelajaran Ilmu Pengetahuan Alam Sosial (IPAS). In *Penerbit Yayasan Kita Menulis*.

Zahwa, Achlikul, F., Syafi'i, & Imam. (2022). Pemilihan Pengembangan Media Pembelajaran Berbasis Teknologi Informasi. *Equilibrium: Jurnal Penelitian Pendidikan dan Ekonomi*, *19*(01), 61–78. https://doi.org/10.25134/equi.v19i01.3963

Zai, Iman, Syukur, F., Mulyono, & Sugeng, Y. (2022). Pentingnya Metode Pembelajaran Bagi Peningkatan Minat Belajar Mahasiswa Program Studi Sarjana Pendidikan Agama Kristen Sekolah Tinggi Teologi Duta Panisal Jember. *Metanoia*, *4*(1), 1–13. https://doi.org/10.55962/metanoia.v4i1.58