

Use Of Digital Learning Applications To Improve Students' Learning Interest In Elementary Schools

Maulidya Hasanah Damanik^{1*}

¹Universitas Negeri Medan, Medan, Indonesia

aulidya.8236181003@mhs.unimed.ac.id*

Abstract. In the rapidly developing digital era, using digital learning applications is one of the new solutions to increase students' interest in learning. This study aims to determine the effectiveness of digital applications in increasing interest in learning, by focusing on three main applications: Quizizz, Google Classroom, and Canva. The research uses a qualitative approach with a literature review from various previous research sources. Previous research on the use of advanced study applications to improve learning in elementary schools. These studies show that apps that feature interactive, mixed media, and different elements can improve student learning, especially in elementary schools. A large number of existing studies demonstrate the importance of computer applications in education and how technology can be used to create enjoyable and effective learning experiences. The number of existing studies varies widely, but overall it shows that this field has been widely explored and continues to grow with advances in educational technology. The results of the study showed that the use of digital learning applications has a positive impact on improving student learning, as Quizizz is effective in increasing motivation through interactive features, Google Classroom facilitates access and management of learning, and Canva stimulates creativity in creating interesting educational media. However, successful implementation of digital learning applications requires adequate technological infrastructure support and skillful creativity in packaging educational materials. This study concluded that using digital learning applications is an effective strategy to increase students' interest in learning in the digital age.

Keywords: Digital Learning Applications, Educational, Interactive, Technology

How to Cite: Damanik, H, M. (2025). Use Of Digital Learning Applications To Improve Students' Learning Interest In Elementary Schools. Proceeding The 7th International Conference Elementary Education, 7(1) 469-479

INTRODUCTION

The fast-paced digital era technology has significantly transformed various aspects of life, including education. A key innovation in this transformation is the development of diverse digital learning applications, which offer a more interactive, flexible, and engaging educational experience.

Digital applications can be used as an interactive learning tool for primary school students as an educational tool. Thus, the teaching and learning process in this era has become increasingly interactive. Students do not feel this way, because only assignments are collected. There is no interaction between teacher and student. So we hope that the learning process through this activity will be more interactive and that more digital applications will be used in the world of education. By introducing, studying, using, and understanding the functions and benefits of digital goods and applications, it is hoped that their studies will be further expanded in the future (Suyanto, 2020).

According to Nanang Hidayat and Khutima (2019), digital learning media can be interpreted as digital devices that stimulate the teaching, learning and knowledge exploration process of students, and also enable distance communication and sharing of understanding between

teachers and students. With the availability of digital learning tools, students and teachers will find it easier to practice learning. Digital learning tools also make students more willing to participate in learning activities, and students can also see a new atmosphere in continuous learning. The use of digital technology in the learning process can increase students' interest and motivation to learn, the quality of the learning process and learning outcomes, but attention must be paid to the different capabilities of human resources in addition to the health and safety of teachers and students (Hidayat and Khatima, 2019);

The learning media that teachers use greatly affects the student's understanding of the material presented, and also affects the students' willingness to accept the material, because in digital learning media there are many new things that students can explore and this makes students more active, creative and able to stimulate critical thinking (Iskander, et al., 2022). Hence, we can conclude that digital learning methods must be developed and used in every school to make the nation's children smart and not lag behind the technology that is being developed.

There are many digital learning applications that can be used as educational tools such as Zoom, Google Meet, Google Degree Room, Quizizz, Duolingo, Zenius, And the teacher's room. Each of these applications has a different purpose and function, depending on the user's goals and needs. In the learning process, using digital learning applications as a teaching method has advantages and disadvantages. The advantages are flexibility, accessibility and interactivity. The weaknesses of its use are technical challenges, lack of interactive interface, and lack of monitoring (Nadhirin, 2024).

Having this digital learning app is also an alternative solution to overcome the problem of low student interest in learning which is often found in traditional learning methods. One of Cornia and Teittin's (2023) papers proves that using video learning tools based on the Canva application developed can increase students' interest in learning. When used, Canva makes it easy for teachers to implement learning using technology and creativity skills. Using Canva's learning tools saves time and makes it easier for teachers to design and explain educational materials to students. Canva app design can increase students' interest in the learning process by offering various learning materials.

Interest in learning is one of the crucial factors affecting the success of the learning process. Without much interest, students tend to be less able to actively participate in learning activities, which may ultimately lead to lower understanding and learning outcomes. The phenomenon of declining interest in learning has become more evident in the digital age, as students are more interested in digital gadgets and entertainment activities than in traditional learning

activities. Therefore, there is a need for a digital educational application that can attract students' attention and not cause students to feel bored in the learning process.

Based on this perspective, research into digital applications for learning use is very important. This aims not only to explore the effectiveness of digital learning applications in increasing students' interest, but also to identify effective strategies for integrating digital technology into the learning process.

Students' interest in learning is important because it affects their motivation and interest in learning. In most primary schools, the problem of low interest in learning often manifests itself in students being inactive in class, not participating in learning activities, and tending to be bored with traditional teaching methods. As technology develops, the use of interactive computer science applications is expected to be a solution to overcome this problem. Computing applications can provide more interesting and diverse learning experiences and can be adapted to students' needs.

Although many digital learning applications are available, there are still significant challenges in implementing and using them effectively in primary schools. The factors that affect the success of this application include the teacher's skills in using technology, the availability of appropriate devices for students, and the impact of the application on academic and academic achievement. Therefore, it is important to explore how computer-based learning applications can specifically improve student learning at the elementary school level.

METHODOLOGY

Research methods are the methods of collecting and finding information when preparing scientific papers. This study will use a qualitative approach, relying on literature analysis as the main method. This study identifies and selects relevant literature that includes aspects of computer-based learning applications. Literature includes journal articles, books, and other academic resources that present research findings, theories, and expert opinions (Anam, 2023).

This study describes descriptive information whose answers can be gathered through expert opinion or the results of previous studies. Therefore, this is a qualitative descriptive study that uses more interpretations than numbers. The sources obtained are based on the results of various observations and documents in various written articles, magazines, books and other sources. The content analysis approach uses the case study type. The information and data used in this study were documented and indexed using purposeful screening techniques. The

sources for this study are articles from Google search and other sources. The research is carried out using the desk research method, which consists of 4 steps, which are obtaining research results, collecting research materials, reading library materials, taking research notes, and preparing research notes.

RESULTS AND DISCUSSION

The rapid advancement of digital technology enables teachers to enhance their teaching by utilizing various technological tools more effectively. Moreover, educators can incorporate different computer applications that support the learning process. These applications are diverse and can be tailored to meet specific learning objectives or used independently of them.

The app is designed to work on mobile devices, such as smartphones and tablets. Using software applications to facilitate a personal learning environment can be beneficial or even essential for future learning. The use of software applications will promote changes in the way education is used and the different ways in which today's students, also called the Internet generation or millennials, use technology to learn. Software applications, when used in learning, can support this learning allowing individuals to manage their role in their own learning. Furthermore, learning will take place in diverse contexts and situations and cannot be provided by just one educational provider. In this regard, the importance of learning informatics is increasingly recognized.

There are many interactive applications that can be used to enhance interactive learning with students. For example, word wall apps, timemeter, kahoot, quizzizz, etc. With the various features available, one can use the app according to their needs (Hakim and Yulia, 2024). In this study, the researchers only worked with new apps like Quizizz, Google Classroom, and Canva.

1. Quizziz

One app that teachers can use in teaching today is Quizizz. Quizizz is a web tool for creating interactive quiz games that can be used in classroom learning. It is very easy to use and answers up to five options including the correct one. You can add images in the background of questions and questions that customers would like to use. After you complete a test, we may share a link with students or provide a five-digit code. (Akbar et al., 2023)

The steps to create a quiz in this application are:

1. Register first through the following link: <https://quizizz.com>
2. After registering, open your Quizizz account

3. You will then be directed to select a test or lesson.
4. Then choose Create Test To create a test, in the menu bar there are many options, adjustments, labels, etc. You can choose one of them
5. Then when you're done, click Save and Publish and give the code or link to the student.
(Akbar et al., 2023)

Using the Quizizz app can provide a great learning experience for students, even if the learning process is actively involved. One of these learning experiences is to motivate students to learn. This is because Ace offers questions through the Quizizz app which has many interesting features. Interesting concepts in Quizizz app can motivate students in the learning process. Using Quizizz app for learning can also encourage students' interest in learning. Ace offers questions in the Quizizz app at different intervals depending on the difficulty level of the questions, so that students feel challenged and want to answer all the questions. Students feel challenged and answer all the questions (Qamar and Maulana, 2021).

This is also consistent with the opinion presented by Arsyad (2017) that using learning tools can encourage students' interest in learning. This is also confirmed by Kurt Lewin's theory (Dimiyanti, 2015), which says that in learning activities students will be given questions to solve as learning materials, and then the interest in learning will be on the learning material.

Quizizz allows students to work independently and instantly assess students on questions. The teacher asks questions through the Quizizz application and gives the correct answer if the student does not answer correctly. Students can find the correct answer if the student's answers are less accurate and the teacher can repeat the opportunity. According to parents/guardians, when using the Quizizz app, children can answer correctly to see if the child has answered the question correctly and the child is given the opportunity to repeat if they get the name. As shown in the research document, it is in the image of the student entering the Quizizz application, where students can see the correct answer in green and the wrong answer in red. It can also be seen in the form of learning achievements, which can only be seen by the teacher entering the Quizizz app, and then it can also be seen how much effort the students put in to work on the questions. This is also confirmed by the results of a study conducted by Salsabila (2020) using the Quizizz application to find out if questions were answered incorrectly so that students could evaluate independently.

2. Google Classroom

Google Classroom still lacks a number of factors, it needs special attention to reduce the use of extra paper which has a strong signal, students prepare mobile phone batteries before studying and the time of submitting assignments is over. Another external factor is that parents

are able to prepare the home environment so that the learning process is comfortable for students, and if there are students who do not have laptops or mobile smartphones, they can come to school, they can borrow a laboratory as a teaching tool, but this is a small obstacle (Amin, 2022).

Google Classroom has many features that are easy to use and manage for teachers and students. This feature will be more effective if you have a great plan in action (Indarwati, 2021). To explain the steps that must be taken to implement learning through Google Classroom, which are 1. Providing materials that are easy for students to access and accept. 2. The materials collected for Google Classroom can be in the form of lectures or in the form of animated videos. 3. Open a discussion room for students who want to ask questions (Lunga, 2021).

While teaching and learning process, using Google Classroom can attract students' attention and interest, but we should know that teachers are always expected to be creative in the material they want to convey (Seret and Apriani, 2024). According to Sidabutar, the effectiveness of using Google Classroom makes it easier for students to make improvements in the quality of learning felt by both students and teachers, which can be seen through the improvement in student learning outcomes. Other studies have also found that learning with Google Classroom can improve learning outcomes, because students become more motivated (Sidabutar, 2021). This is confirmed by the results of Lunga's study (2021) that 50% of students confirmed that learning is effective, and Zahra and Bojiastuti (2021) stated that 50% of students confirmed that learning is effective. (2021) found that 41% of students reported that learning was very effective using Google Classroom.

The conclusion of the research findings through the literature review is that there is good power to improve learning outcomes in using Google Classroom. However, it should be noted that there are several factors that influence the use of Google Classroom as a teaching tool, namely internal and external factors. One internal influence factor is the lack of direct supervision of students by teachers, so parents need students to learn from staff. External factors that can affect consumption Google Classroom is an elegant presentation of the learning process.

Google Classroom is one of Google's most popular resources. Google Classroom is a free service for schools, nonprofits, and anyone with an account. Google Classroom makes it easier for students and teachers to stay connected inside and outside the classroom. Google Classroom is a blended learning platform developed by Google for schools that aims to make it easier to create, distribute, and assign assignments in a paper manner. (Akbar et al., 2023).

Using Google Classroom teachers can create a virtual classroom, invite students to join the class, provide information about the teaching and learning process, provide semi-open materials for students to view in the form of notes or presentation letters, give assignments to

students, create assignment cards, and more. Here are the steps to create a virtual classroom using Google Classroom. (Akbar et al., 2023)

1. The step is to open the https web address:
3. Then open <http://classroom.google.com> with your Gmail account.
2. Then press the plus (+) button to start "Creating Chapters"
4. 3 Fill in the information required in the list
5. Then click Save and share the link with students (Akbar et al., 2023)

Google Classroom works well and is said to have succeeded in getting students interested in learning. Indicators of students' eagerness to learn can be observed throughout the learning process in the classroom and at home, including: 1) feelings of fun, 2) interest in learning, 3) the subject and teacher's attitudes, and 4) the benefits and functions of the subject (Salametto, 2010).

Using Google Classroom is so simple that it does not make it difficult for stronger students to learn and is a new and exciting way for students to pay attention to their learning. In addition, learning to use Google Classroom is not difficult, because students can easily access it either from a computer or an Android mobile phone with the help of the internet so that students feel happy, especially with the attitude of students who deal with powerful gadgets and devices every day (Kurniasari, 2021). According to Andikos (2021), Google Classroom is a widely used application. Google Classroom not only helps organize virtual classes, provide assessments, and provide live feedback, but also provides many other support features.

3. Canva

Canva is a graphic design tool used to create social media, promotions, ads, documents, and other visual content. The app also provides different design examples for use. Reported by kuplengan.com and Canva.com, Canva is a very easy-to-use, free and paid design, photo editor and video editor, available in templates and tables. (Widhyasoti, 2024). Triningse (2021) said that Canva makes it easier for teachers and students to exercise the process of artistic training, skills, creativity and other benefits, because the results of using

Canva can increase students' interest in learning activities, increase students' motivation, and present slightly open materials and materials in an interesting way. Canva has thousands of templates that make it easy for teachers to design effective learning in the form of potential or educational collections or videos. This way, students will be more interested in learning and of course learning will be more interactive, plus it makes teachers more effective in designing

learning. The Canva app can be accessed via tablet or smartphone, and there are many training exercises in YouTube scenes to use, so working with the Canva app is no hassle (Rainbow Line, 2020).

Here are the steps to use the Canva app on your smartphone or tablet:

1. The first step is to download the Canva app on Playstore for smartphone users or open the official Canva website [https:// www.canva.com](https://www.canva.com) for professional mobile workstation users.
2. The second step is to create a Canva account, which can be done using a Facebook, Google, or Gmail account.
3. The third step is to create a design through Canva or with the help of existing posts, there are also many elements, images, text styles provided, and of course features for the needs that can be used very easily.
4. The last step is to download the plan if you haven't already. The way is just by clicking on the arrow on the right corner (side), then it will take the desired record type, and the design will be saved in the gallery or file. (Widhyasoti, 2024)

The use of technology-based teaching tools is very important in the learning process, especially in our time when students cannot be separated from these tools. As a teacher, you can guide them to use the tool for positive activities, one of which is classroom learning. For this reason, teachers will be able to design technology-based learning tools to encourage students to be active in class. With this independent course, there is an opportunity for teachers to explore their creativity in designing and creating educational games. Canva is one of the applications that a teacher can use as a teaching tool, as it has been proven to stimulate students' interest in learning. (Widhyasoti, 2024)

The previous related study, which is "Using the Canva application in mathematics learning media at FN Miftah al-Jannah School, et al., found that as a result of using the Canva learning tool, there is an increase in student motivation, scientific literature, and learning outcomes so that it is suitable for using learning to improve the ability to learn mathematics, in addition to that the activities in learning activities can increase its role in learning activities. The related study could be better, which is "The use of Canva application in learning at SDN Anisatun, et al. (2023) found the results of using Canva application by 5th grade teachers in SDN Sambirejo 02 Semarang in 21st century learning are that students become active, students become creative, and students become confident.

Canva app is very easy to use by anyone especially teachers and students. Canva is a very simple and easy to use graphic application (Pelangi, 2020). Thanks to the features available in the Canva app, owners can design learning tools in the most creative ways. Students can also do the same to create their own learning features. Therefore, using the Canva app can be a solution to increase students' interest in learning and creativity because the learning activities will be more communicative and interesting overall.

CONCLUSION

This study examines three main applications, Quizizz, Google Classroom, and Canva, each of which has advantages in aiding the learning process. Quizizz has proven effective in increasing students' motivation and interest in learning through engaging interactive features. The app allows students to conduct independent, straightforward assessments, and provides an enjoyable learning experience, even when the teaching is intense. Google Classroom as a learning platform shows positive power to increase learning benefits and outcomes, providing ease of access and operation, although there are limitations such as dependence between web links and displays that tend to be tedious. At the same time, Canva has succeeded in increasing students' interest and motivation in learning, encouraging creativity in both teachers and students, as well as facilitating innovative and interesting learning through social media.

In general, the use of advanced study applications has been shown to be effective in increasing students' interest in learning, as long as it is supported by appropriate technological infrastructure and teachers' creativity in collecting educational materials. The application can provide a more interactive and enjoyable learning experience, and thus be the right solution to improve the studies of advanced-age students, although it is still necessary to pay attention to the various factors that encourage and hinder its implementation.

Based on the study there are several recommendations that should be taken into consideration for their better development and implementation. Teachers, it is important that you continue to improve digital resources and use them creatively in different learning applications. For advanced researchers, it is suggested to expand the scope of study by examining various other research applications that have the potential to increase interest in learning. More research is needed on the long-term effects of using digital learning applications and the development of evaluation models that can measure the effectiveness of learning applications on a broader scale.

REFERENCES

- Eyes, s. (2021). An analysis of the level of digital literacy and student-led collaboration in seventh-grade science education. *Journal of the College of Arts Association* , 5
- Amin, N. F. (2022). Using Google Classroom in learning to improve physics learning outcomes. *magazine Educational innovation and technology* · 127-132.
- Andikos, A.F., Gitman, M., and Meskher, M. (2021). Meta-Analysis: Effectiveness of Google Classroom and Moodle in Blended Learning as a Teaching Method for Vocational Secondary Schools in Indonesia. *Gusto iPTEKS Magazine*
- Annisatun Hidayatullah, et al. (2023). "Applying Canva's Gut to school learning. *Education magazine* , 9(2), 2023, 943-9 DOI: <https://doi.org/10.31949/education.v9i2.4> 823
- Ariyani, M., Zulhwati, Z., Haryani, H., Zani, B. N., Hasnita, L., Fermansyah, M. B., ... & Hamsiyah, A. (2023). *Application of educational media for the digital age* . Pt. Sunpedia Indonesia Publishing.
- Hidayat, N., and Khutima, H. (2019). Using digital technology in educational activities. *Journal of the Doctoral College of Education (JPPGuseda)*
- Indarwati, S. (2021). The effectiveness of using Google Classroom in distance learning of Islamic religion and character education subjects in light of the Covid-19 pandemic. *Magazine teacher: Journal of Educators and Educational Innovation* · 1 (1)· 1-8. <https://Doi.Org/10.51878/Educator.V1i1.501>
- Iskandar, S., Rosmana, B.S., Al-Dila, A.S., Nessa, F.F., Putri, III, and Nafisa, R. (2022). Analysis of the use of digital learning media to increase students' interest in learning in Belek Darga Middle School. *Teacher Education Journal* , 4 (2)· 1438-1445.
- Kurnia, I.R., and Sunaryati, T. (2023). Canva-based video learning media to increase students' interest in learning. *Fkip Unma Educational Magazine Indonesian: 9 (3)· 1357-1363.*
- Kurniasari, W., Mortono, M., and Setiawan, D. (2021). Increase students' interest in learning by using a blended learning model based on Google Classroom. *Fkip Unma Educational Magazine Indonesian: 7 (1)· 141-148.*
- Longa, A. any. (2021). Using the Google Classroom app in an effort to improve mathematics learning outcomes for Class X Ips 3 students at SMA Negeri 1 Maumere. *JOT: Journal of Teacher Education, 2(2), 49-57.*
- Marlina, H., Saada, H.M.R., Al-Zahra, L., Dewi, R., > Albian, Y. (2024). The effectiveness of using digital learning tools in primary schools. *Journal of Educational Innovation* , 7 (1).
- Matondang, A. (2018). The effect of interest and motivation on educational achievement. *Bahastra: Journal of Indonesian Language and Literature Teaching* , 2 (2)· 24-32
- Nadhirin, A., > Ressa, M.N.H. (2024). Digital learning applications and its effects on the quality of education. *Sindoro: The World of Education* , 4 (8)· 55-65.
- Okra, Riri and Yulia Novera, Digital Media Science Development at SMP N 3 Pangkalan Regency, *Public Institution Journal: Journal of Educational Studies* · 4.2 (2019)· 111.

- Pelangi, c. (2020). Using Canva Media to teach Indonesian language and literature at the high school/SMK level. *Sasendo UNPAM Magazine* , 8 (2), 79-96.
<http://dx.doi.org/10.32493/sasindo.v8i2.79-96>
- Sidabutar, R. (2021). The effectiveness of applying interactive learning media based on Google Classroom in the era of Industrial Revolution 4.0 on students' mathematics learning activities. *Science Magazine* , vol.
- Sirait, Ed., Abriani, D. D. (2024). Literature Review: Google Classroom Gut in Mathematica Doctrina. Discussion of the National Mathematics Education Team , 10 .
- Suyanto, O., Romadhona, D., Hedayati, N., and Askar, B. M. (2020). Using digital applications in interactive learning for primary school students in the new normal era *Community service magazine* , 1 (2), 122-128.
- Triningsih, Zia Erna (2021). Implemented Canva to improve the ability to provide critical responses to texts through project-based learning. *Paper science. To the history of media documents* , 15 (1), 128-144.
- Widiastuti, A. (2024). Use APCA (Canva app) to increase students' interest in learning and creativity. *Journal of Application Innovation Research and Education Series (Jarlitbang)* , 27-38
- Zahra, N.A., and Pujiastuti, H. (2021). The effectiveness of online learning using Google Classroom in secondary school mathematics. *Axioma: Journal of the Mathematics Education Study Programme*.