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The Effectiveness of Google Classroom Applications on Elementary School Students' Cognitive Learning Outcomes

Dedi Zulkarnain Pulungan^{1✉}, Jamaris², Junifer Siregar³

Universitas Negeri Padang, Indonesia^{1,2}

Universitas HKBP Nommensen Pematangsiantar, Indonesia³

E-mail: pulungandedi@student.unp.ac.id¹, jamris@dosen.unp.ac.id², junifersiregar08480@gmail.com³

Abstrak

Tujuan dari penelitian ini adalah untuk mengidentifikasi minat belajar siswa sekolah dasar mengikuti pembelajaran online (blended learning) menggunakan aplikasi google classroom. Penelitian ini menggunakan metode kualitatif dengan desain deskriptif. Populasi dalam penelitian ini adalah siswa kelas V tahun ajaran 2021/2022. Pengambilan sampel secara purposive sampling adalah kelas V yang terdiri dari 20 peserta dari total populasi 48 siswa. Teknik pengumpulan data menggunakan triangulasi yaitu dengan instrumen pretest, posttest, gain, N-gain terhadap hasil belajar kognitif dilengkapi dengan instrumen wawancara dan observasi untuk mengkonfirmasi persepsi belajar siswa. Hasil penelitian menunjukkan bahwa rata-rata hasil belajar kognitif siswa SD pretest adalah 66,42, hasil posttest rata-rata 78,25; gain rata-rata sebesar 11,83 sedangkan N-gain sebesar 0,57 dengan persentase peningkatan sebesar 57% yang menunjukkan bahwa penggunaan aplikasi cukup efektif dalam meningkatkan hasil belajar kognitif siswa sekolah dasar. Sedangkan hasil wawancara dan observasi siswa dan guru menunjukkan respon yang positif. Minat belajar siswa meningkat dengan adanya varian sajian pembelajaran tematik dengan aplikasi google classroom. Sementara itu, para guru menunjukkan sikap positif yang menunjukkan keterbukaan terhadap pendekatan baru pembelajaran menggunakan platform digital, khususnya aplikasi pembelajaran Google Classroom.

Kata Kunci: pembelajaran online, google classroom, hasil belajar kognitif

Abstract

The purpose of this study was to identify the learning interest of elementary school students following online learning (blended learning) using the google classroom application. This study uses a qualitative method with a descriptive design. The population in this study was fifth-grade students in the 2021/2022 academic year. Sampling by purposive sampling is class V which consists of 20 participants from a total population of 48 students. Data collection techniques using triangulation, namely the pretest, posttest, gain, and N-gain instruments on cognitive learning outcomes equipped with interview and observation instruments to confirm student learning perceptions. The results showed that the average cognitive learning outcomes of elementary school students pretest were 66.42, and posttest results averaged 78.25; the average gain is 11.83 while the N-gain is 0.57 with a percentage increase of 57% which indicates that the use of the application is quite effective in improving the cognitive learning outcomes of elementary school students. While the results of interviews and observations of students and teachers showed a positive response. Students' interest in learning increases with the variants of thematic learning offerings with the Google Classroom application. Meanwhile, the teachers showed a positive attitude that showed an openness to new approaches to learning using digital platforms, especially the Google Classroom learning application.

Keyword: online learning, google classroom, cognitive learning outcomes

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✉ Corresponding author :

Email : pulungandedi@student.unp.ac.id

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INTRODUCTION

In the Industry 4.0 era, it has had a great influence on the development of information and communication technology in all aspects of human life Nabung et al., (2022) ; Lena & Anatan, (2020);Sudibjo et al., (2019). The ease of accessing this technology is then used by teachers in the learning process to improve the quality of education (Pantiwati et al., 2020). The increasing covid-19 pandemic has resulted in various polemics or problems that occur especially in the world. This affects various sectors of people's lives, especially Indonesia. Indonesia is not spared from countries with the most positive cases of corona so that the government sets a policy of working from home by applying the 5M principle that must be obeyed by the Indonesian people Gayatri, (2020); Doyumğaç et al., (2020); Isotani & Te-, (2022). This situation also requires the education sector in Indonesia to decline. The role of integrated and online learning, including 'reverse learning' Susilawati & Supriyatno, (2020) and the use of various learning management systems or 'platforms' in various levels of formal education are crucial demands in today's digital era. The shift in learning relations from face-to-face to blended learning has got a massive practical accentuation in the implementation of the emergency curriculum during the COVID-19 pandemic era in Indonesia at various levels, including the level of basic education. Supported by a growing interest in online or cloud-based learning relationships, and the pedagogy applied to support these tools, it can result in greater participation and interaction among students, and between students and their teachers at the primary education level. While some previous research is 'techno-optimistic' because they believe that the use of such tools (digital platforms) will revolutionize education by increasing student engagement, democratizing access and enhancing learning Hamid, (2020) while a number of other studies show a undecided perspective and recommend only limited or even discouraged use of digital media tools in the classroom due to their limited impact on student learning, potential for distraction and concerns about high dropouts. Rates Putra et al., (2020);Coman et al., (2020). Various opinions about the effectiveness of online learning have led to greater confusion about how higher education institutions should use these tools (or even if they should deploy them at all) and how educators can use students' appetite for social media to enhance learning. The government through the Ministry of Education and Culture has issued a Circular Letter of the Minister of Education and Culture Number 4 of 2020 concerning the Implementation of Education in the Corona Virus Disease (COVID-19) Emergency Period saying that the process of teaching and learning activities is carried out through online/distance learning from home. This situation is also able to change the administration of educational institutions school to distance learning/from home (Nabung & Fil, 2021) . Facing this changing learning situation, e-learning or online learning has begun to be looked at by educational institutions in helping the distance learning process. One of them is the Educational Institution in NTT, Flores Manggarai at SDK RUTENG I. Online learning aims to meet educational standards by the use of information technology, such as computer media or gadgets. The development of technology in the 21st century that is felt today is the emergence of the latest and modern technologies, one of which is information and communication technology. With the development of communication technology, the interaction between humans to communicate is getting more advanced Muhdi et al., (2020);Hebebcı et al., (2020). The development of this technology allows helping the learning process in the Ruteng 1 SDK by using communication tools such as cellphones and laptops. With this online learning, teachers still communicate with students without having to meet face to face, without any limitations of space and time. Tinungki & Nurwahyu, (2020) states that e-learning is the latest feature in learning using internet access to improve a learning environment that can be accessed anywhere, anytime as long as you have an internet network. Google for education has several services such as Google classroom, google mail, google meet and google drive. This application provides an opportunity for educators to explore their scientific ideas to students, to create active and effective, efficient and fun learning.

This application is also used by the Ruteng 1 SDK to foster a sense of creativity for educators and students in developing learning media with Google Classroom. Google classroom is the most interesting innovation from

Google because it is a product created to assist educators and students in carrying out teaching and learning activities. Google Classroom is a web-based technology used in education to facilitate the teaching and learning process Muhdi et al., (2020) Currently, Google Classroom is one of the popular learning platforms, because it can accommodate more than 30 million assignments uploaded by teachers and students (Yuniarti & Radia, 2021).

Google Classroom was first introduced as a G-Suite feature for education, which was then officially released on August 12, 2014. In 2014 to 2016, the development of Google Classroom was not intended for everyone, but only for schools that collaborated with Google. However, in March 2017, Google Classroom can be accessed by everyone using a personal Google (Tinungki & Nurwahyu, 2020). In addition, Google Classroom can be accessed for free via computers or devices. This application can be downloaded via the playstore on Android or the app store on IOS.



Figure 1. Data on the massive use of digital platforms from the google application in the last decade, where users of the google classroom application have reached 10 million users, most of which come from teachers and students

(Source: <https://www.teachthought.com/education/google-apps-for-education/>)

Another major consideration is the effective implementation of this online platform through practitioner reflexivity and inquiry. The authors are not only interested in embedding new technologies into their teaching, but they also aim to maximize the effectiveness of these tools by taking a critically reflexive and inquiry-oriented approach. Sheppard & Wieman, (2020) highlight that teacher educators need to proactively develop their own professional skills and knowledge and be able to demonstrate these abilities for pre-service teachers. They argue that teacher educators need to be 'skillful, knowledgeable and insightful people who are multifaceted, flexible and highly skilled communicators' (p. 5) to cultivate similar qualities in future teachers. As teacher educators 'teach' the art of teaching, Redman and Singh et al., (2021) propose that teacher educators should be lifelong learners who are able to reflect and evaluate their practice in order to continually refine their teaching skills. These principles are shown when the author examines the use of online media in order to get critical feedback to students and teachers on the implementation of online learning. Here, of course, the role of a teacher is very important in ensuring the learning process continues to run effectively. This study is an attempt to link shifting and even changing learning approaches to learning governance systems in all education sectors. As mobile devices are ubiquitous, educators need to consider the value of those devices, and how best to adapt their pedagogy to take advantage of "digital networks anytime and anywhere". However, there is relatively limited research, especially related to the extent to which networked media devices with digital platforms are used to create an effective learning climate and ensure the quality of learning takes place as expected, especially in the context of basic education? This issue will be elaborated in this simple research.

There is insufficient reflection and critical analysis of the use of online learning tools when implemented; among practitioners themselves there is a common challenge regarding the lack of time to research implementation (Mielikäinen, 2022). In the practice of using the digital platform "google classroom" in the implementation of online learning in the recent pandemic era, a number of challenges and obstacles that have arisen have not been widely publicized. Mainly related to user subjectivity and the correlation its importance

for learning effectiveness. As a result, these technologies can be introduced into classrooms with limited understanding of their impact on actual teaching and learning practices. The implementation of online learning with the google classroom application in this study often failed to improve learning outcomes or student engagement, not because of a system error, but because of a lack of critical thinking about how best to use learning features or the weakness of digital skills among teachers and students themselves.

Here are some earlier studies on the application of Google Classroom: In their research on e-learning, Ramadhani et al., (2019) discovered that Google Classroom had 12 issues and Edmodo had 9 issues with general usability. Edmodo lists the following codes for the user experience: (1) supports; (2) perplexing; and (3) complicated. Please provide the code for Google Classroom as follows: It is (1) useful, (2) enjoyable, (3) unsatisfactory, and (4) perplexing. The resulting conclusion is that whereas Google Classroom is better suited to be utilized as a support or addition to learning, Edmodo is better suited for the learning process that completely utilizes e-learning. With the findings from this study, Umamah, (2019) did another investigation about Google Classroom students can have access to Google Classroom for online learning. Even if there isn't class, the teacher can still impart knowledge. This is a type of after-school teacher supervision of the students. Additionally, Syakur, (2020) conducted research on Google Classroom, with the findings demonstrating that using e-learning was able to improve English tutors' proficiency with using learning technology, particularly the use of Google Classroom in the classroom.

As practicing educators and academics, we are interested in addressing this gap by exploring our own use of technology. Working in a collaborative teaching context with a class group of 33 Ruteng 1 elementary school students, this study wanted to explore the efficacy of using online and mobile technology to encourage student engagement, especially by providing opportunities for all students to engage with the subject matter and express their views on the topic. weekly seminars. Our motivation is partly due to the large class size; 33 students means that the broad and in-depth discussion that had been central to the subject in previous iterations (with classes smaller than 16 or 17) is no longer feasible. Reflective thinking and critical discussion are very important components of this subject because of the philosophical nature of its content. We want to maintain this teaching approach, because it is valuable in terms of student learning, as indicated by student surveys from previous years, but we want all students to participate in these discussions, either during class time or as part of their activities class prep work, regardless of the large class size. We were curious to see if there was a way to leverage technology to foster a learner community among pre-service teachers. In particular, we are interested in whether the use of tools such as Google classroom (including Classroom, Drive, Docs, Forms, and Slides), will increase student participation and provide ample space for students to express their understanding of the content provided by the teacher . The study also seeks to explore and explore the use of these tools: for example, how often do students use them during class time, outside of class time, or both? Which do they like more? And, most importantly, in what ways do students use these applications so that they can access and use them for a wider social context, to share information and discuss concepts raised in class? Or are they used reflectively, as an aid to student learning development? There has been some recent exploration of the benefits and challenges provided by online learning platforms and supporting pedagogies as described above with the aim of identifying primary school students' learning interest in online learning (blended learning) using the Google Classroom application.

METHOD

The approach used in this study is a qualitative-descriptive approach Vaismoradi et al., (2016);Viendyasari, (2020);Colorafi & Evans, (2016). Research using a qualitative approach, in principle, wants to provide, explain, critically describe, or describe a phenomenon, an event, or an event of social interaction in society to seek and find meaning (meaning) in a real context (natural setting) (Doyle et al., 2020).



Figure 2. Infographics on various research developments and analysis of the effectiveness of using digital media applications based on various methods and approaches.

(Source: <https://www.gurusiana.id/read/drasittiaisyahmpd/article/metodologi-penelitian-google-classroom-4882966>)

The type of research used is descriptive research. Where the researcher will describe or provide a systematic description of the phenomena to be observed. Descriptive observation means doing a thorough observation of something that is in the research setting. Data is something that cannot be separated from qualitative research, as stated by (Sugiyono, 2018). in the form of words or pictures, and does not emphasize the meaning behind the observed data. While the data source is the subject from which the data is obtained. This type of research data will be obtained in two ways, namely primary data and secondary data. First, primary data will be obtained directly from the research subjects, namely teachers at the Ruteng I SDK and students. Second, secondary data obtained through previous studies such as journals, books or other media sources that support the completeness of research data.

Data collection is a procedure carried out to obtain the data needed in research. When viewed from the method or technique of data collection, data collection techniques can be done by observation, interviews, documentation and a combination of the three. The following data collection techniques used by researchers:

Observation; Observation is a collection technique that requires researchers to go to the field to observe things related to space, place, actors, activities, time, events, goals and feelings. In this study, observations were made to find out how the effectiveness and improvement of students' competencies when learning online using the google classroom media was. Interview; Interviews or interviews for research are different from everyday conversations. Interviews usually intend to obtain information, opinions, opinions orally from someone who is usually called the respondent by talking directly to that person. In general, interviews are divided into two types, namely planned interviews and unplanned interviews. Planned interviews, previously a list of questions has been prepared and arranged systematically. Whereas in unplanned interviews, there is no systematic preparation of questions that require the interviewer to obey. In this research, the researcher will conduct planned interviews with teachers and students at the Ruteng I SDK. During the interview process, the researcher will also record the results of the interviews to be processed and reported in the research results. Documentation; Documentation method, which is looking for data about things or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, lenger, agenda, and so on (Lobe et al., 2020).

RESULT AND DISCUSSION

Based on the statement points related to the developed media, the validation results are presented in Table 1 below.

Table 1
Average alpha test results for media

Validator I		Validator II			
Aspect	Aspect	Quality	Aspect	Aspect	Quality
Language	Media		Language	Media	

Average Score	4.55	4.47	4.53	4.52
Average	4.5		Category	Fairly Good

Source: Primary Data



Figure 3. Infographic of researchers' activities with students in exploring and confirming student responses to online learning through the Google Classroom application

Based on the statement points related to the material being taught, the validation results are presented in table 2 below.

Table 2
Average alpha test assessment results for the material

	Validator I		Validator II	
Aspect	Aspect	Quality	Aspect	Quality
Quality	Motivation		Material quality	Motivation
Average	material score			
	4.47	4.45	4.46	4.46
Average			4.41	Category
				Pretty good

Source: Primary Data

After the material analysis has been carried out, it is followed by a concept analysis which aims to identify, detail and systematically compile the concepts contained in the evidence material. The systematic preparation of concepts aims to make it easier to make google classroom learning so that students can easily understand the contents of the google classroom. This is because the presentation of the material needs to be observed and understood independently. This is stated by Sutrisno (2011) that according to the andragogy theory proposed by Kowles, adults are able to direct themselves and are responsible for their decisions. Therefore, the design of learning for adults needs to consider: (1) adults need to understand what they are learning so that students learn based on their own needs and the teacher as a facilitator, (2) adults need to learn experimentally, (3) adults consider learning as problem solving and not just stuffing students with material, (4) adult learning is most pleasing if the subject matter has meaning and is related to everyday life (5) learning involves the learner's experience.



Figure 4. Infographics of interview activities and dialogue between researchers and teachers who support thematic learning at the Ruteng 1 SDK, Manggarai.

Table 3
Average beta test results on the content of the learning google classroom application

No	Study Statement	The average value of each item of the statement
1	Clear learning objectives	4.40
2	I happy study use google classroom learning	4.80
3	Presentation sentence with language which straightforward and easy understood	4.50
4	Theory which discussed interesting	4.40
5	Theory which discussed very useful for I	4.60
6	Clarity picture/google classroom shown	4.50
7	Clarity pictures/google classroom can support process learning	4.60
8	Existence effect transition on google classroom to make it interesting attention user	4.50
9	Clarity use effect sound/music	4.60
10	Clarity sound/music make interesting google classroom	4.70

Based on the analysis of the responses given by students, it was concluded that the google classroom used was given an average score of 4.60. With some suggestions for revisions submitted by students that it is necessary to convey apperception in some of the material presented, the delivery of learning objectives, the audio used needs to be considered again because it is less audible due to frequent disturbances, and the blackboard media used should be of a larger size so that the writing is legible. good. Based on the results of the beta test analysis, it was concluded that the learning media in this case the developed learning google classroom met the criteria of practicality and was suitable for use with slight revisions. Based on the results of the pretest and posttest analysis, it was concluded that learning using digital media was considered quite effective. Further research is expected to be able to carry out extensive testing and distribution testing so as to be able to determine the effectiveness of the product being developed.

Meanwhile, referring to the data from the Pre-test and Post-test Analysis, which was carried out through a trial phase, 28 students who offered thematic subjects in the even semester of the 2021/2022 academic year were appointed by a number of manual data processing in the process and showed performance. positive ones. After collecting data, further reduction is carried out. There were 8 students whose data were incomplete, i.e. less than 75% of the total face-to-face thematic learning followed, and did not take the posttest so that 20 students became the research sample (). The test of students' cognitive learning outcomes was analyzed using gain. The histogram of the N-Gain data can be seen in Figure 6 below. While the results of the average scores of pretest, posttest, gain and N-gain students' cognitive learning outcomes of N-Gain can be seen in table 4 below.

Table 4
The average value of pretest, posttest, gain and N-gain of elementary students' cognitive learning outcomes

Data source	N	Average					Category
		Pre-test	Post-Test	Gain	N-Gain	Percentage	
Kgnitive learning result test	20	66.42	75.25	11.83	0.57	57%	Effective enough

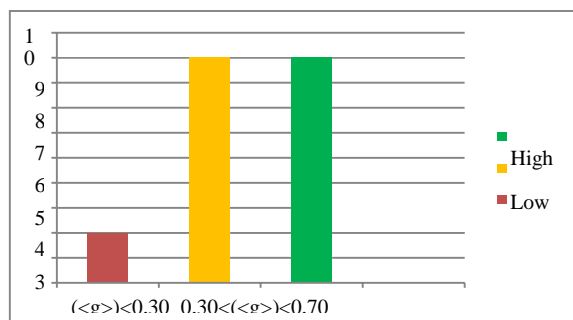


Figure 5. N-Gain. data histogram

Discussion

1. Planning Stage

The initial stage begins with analyzing the analysis of elementary school students, including an analysis of their need to master thematic learning materials, of weaknesses in understanding logic and proof problems as well as an analysis of the need for feedback. Based on the initial analysis, it is known that several things are as follows: (1) Elementary school students' mastery of the evidentiary material is still low. This can be seen from the results of observations of the answers given both orally and in writing. (2) 95% of elementary students use Smartphones and Laptops in interacting with friends and lecturers for lecture materials and assignments. (3) The thematic learning conditions due to the Covid-19 pandemic provide space for elementary students to access various learning google classrooms obtained through youtube. From the results of material analysis and reflection of previous thematic learning, the material that is determined to be the object of development is material Proof in mathematics. Determination of the material is preceded by the formulation of basic competencies, learning objectives and assessment indicators based on detailed guidelines in the Semester Thematic Learning Plan (RPS). Based on the results of material analysis, it is known that the presentation structure in Real Analysis material requires mastery of supporting concepts that are not explained in detail in the presentation in the book. This requires analytical skills and the ability to understand the basic concepts that have been studied. After conducting the material analysis, it is followed by a concept analysis which aims to identify, detail and systematically arrange the concepts contained in the proof material. The systematic preparation of concepts aims to make it easier to make google classroom learning so that students can easily understand the contents of the google classroom. This is due to the presentation of material that needs to be observed and reached independently. This is stated by Machynska & Boiko, (2020) that according to the andragogy theory proposed by Kowles, adults are able to direct themselves and are responsible for their decisions. Therefore, the design of learning for adults needs to consider: (1) adults need to understand what they are learning so that students learn based on their own needs and the teacher as a facilitator, (2) adults need to learn experimentally, (3) adults consider learning as problem solving and not just stuffing students with material, (4) adult learning is most enjoyable if a subject matter has meaning and matters related to everyday life (5) learning involves the learner's experience.

First, the design stage; at this stage, prepare for the creation of Google Classroom by analyzing its appearance. Google classroom design for course analysis using the Filmora application by starting with the

concept of proof, axioms, and theorems. Then prepare the recording, explain the material and then do the editing by adding pictures and sound.

In general, in the stages of making Google Classroom learning, preparing material, making a flow of thought and pouring it in the form of flowcharts, making *story boards*, preparing *background* and animation as well as video/module devices and doing *editing*.



Figure 6. Infographic of thematic learning design using the google classroom application in various variants of the process approach

(Source: <https://blog.google/outreach-initiatives/education/classroom-the-anywhere-school-updates/>)

Second, the development stage; at this stage alone there are many further development steps needed in the implementation of online learning with the google classroom application in learning activities in elementary schools. Based on a number of findings and results in this study, the next step of development certainly includes a number of aspects, including: materials, *story boards*, and power points are prepared and then the design of the presentation of the material is carried out, the editing process to get the first phase of the teaching module. This prototype is then evaluated by a certain testing process (forming a content assessment team and module design) by filling out the validation sheet provided. The characteristics of media validation include the appropriateness of the display and the language used, the characteristics of the material related to the feasibility of the content of the material and the structure of its presentation.

The results of filling out a set of instruments in the form of a questionnaire/questionnaire given to two media experts and two material experts show that the material and media developed in prototype I are in a good enough category with some revision notes. Furthermore, to find out the shortcomings of the video, it was then tested on 20 elementary school students and they commented that there needed to be several notes, including apperception and sound quality, speed of explanation and some material concepts that needed to be improved. For the feasibility and display of the video, it is considered quite good and the positive note given is the educational value of the corona virus that is displayed. In general, for prototype I there were several revisions both to the quality of the video and material, but the results of the analysis of the alpha test and beta test showed that the video was good enough to be used after being revised to get the final product. While the results of the N-gain test show that learning using digital media is considered quite effective. This is supported by the opinion of Lubis & Sulistiawati, (2021) which states that is a valid measure to see the effectiveness of a learning. In general, the discussion of this chapter covers several things. *First*, how is the effectiveness of online learning using google classroom media. *Second*, how to increase student competence using google classroom media in online learning.

2. Effectiveness of Online Learning Using Google Classroom Media

As with the pace of development of science and technology today, which is so fast, it greatly affects the world of education so that it is encouraged to improve its quality in any way, because in this modern era, learning activities can not only be done face-to-face but can also be done face-to-face. online through several special platforms that have been provided for online learning. With the development of science and technology today, it is indeed an alternative to be able to apply distance or online learning models. However, an education system

that utilizes technology in the learning process must be supported by adequate facilities and infrastructure and must be in accordance with the learning objectives. A learning media does add to the attractiveness of the appearance of the subject matter so that it is expected to increase motivation and interest and take the attention of students to focus on following the subject matter presented, so it is hoped that learning effectiveness will increase.

Effectiveness itself generally shows how far the achievement of a predetermined goal, so this effectiveness is an important factor in learning because it can determine the level of success of a learning model used by teachers. Hamalik stated that effective learning is learning that can provide opportunities for self-study or carry out the widest possible activities for students to learn so that students are expected to understand the concepts they are learning. So, in order to create effective learning, a teacher has the right to determine the right learning concept for his students, therefore the role of the teacher is also important to increase the effectiveness of learning because it is the teacher who plans, implements, and evaluates a lesson.

Online learning using google classroom digital media at the Ruteng I SDK has positive value for students because they can simultaneously learn technology in today's increasingly sophisticated and developing era. That way, students can use the technology to explore and expand information and knowledge about learning materials from sources other than the teacher. According to Fauzi & Sastra Khusuma, (2020), the application of online learning can provide new experiences that are more challenging than the face-to-face learning model. Where in online learning students and teachers have freedom because they are not limited by space and time. As in the Ruteng I SDK, implementing online learning using the google classroom learning media, where teachers can freely provide learning materials to students and also students have a lot of time to work on and collect assignments because they are not limited by space and time. Even so, the teacher at the Ruteng I SDK does not necessarily give freedom to his students in doing assignments, for those who can do assignments on time or collect them first will be given a plus by the teacher. In line with the research conducted Rohman et al., (2020) According to the cumulative calculations that have been detailed in the graphical modeling, the findings show that the highest percentage of students—88%—stated that they agreed that online learning is effective in terms of time availability. A majority of 85% of respondents agreed that online learning is effective and that the GC user interface is simple. However, if learning aims are discussed, the proportion attained from the viewpoint of the student is just 37%, which is still poor. The majority of pupils, or 60%, concur if the pandemic has stopped, according to data results on blended learning planning on the usage of GC.

Based on the results of the study, the implementation of the google classroom learning media in the Ruteng I SDK was systematically in accordance with the learning device plans that had been prepared, but in the application of online learning there were still some obstacles faced by teachers and students so that the school was still trying to make learning This online program can run optimally and every learning process carried out can be understood by students.

3. Improving Student Competence Using Google Classroom Media

An aspect that can be developed in today's learning is the media used for teaching and learning activities. Media plays an important role in learning that is used as a tool to convey material to students. Therefore, the accuracy of the learning media used will affect student learning outcomes. Thus the use of a media that utilizes technological advances is able to optimize the process and learning outcomes that will be obtained by students during learning activities. Even so, the use of a media for learning must have some advantages and disadvantages where this is something that is natural. According to the Ministry of Education and Culture, in the 21st century there are four competencies that must be achieved by students called the 4Cs, namely Critical Thinking and Problem Solving (critical thinking and solving problems), Creativity (creativity), Communication Skills (communication skills), and Ability to Work Collaboratively (the ability to work together). Where students are expected to succeed in the world of work and life through mastery of creative thinking skills, flexible problem solving, collaboration, and innovation (Suardin & Andriani, 2021).

According to the teacher at the Ruteng I SDK, with an online learning model like this, on average, students understand the material being taught, besides that they also do their job well. However, there are some shortcomings, namely there are still those who cannot understand well the material being taught, when the collection time exceeds the time limit determined by the teacher, often absent, does not have cellphones and other learning support tools, network problems due to erratic weather, quotas lack of internet and also other things. Thus, it can be concluded that the use of google classroom learning media can improve student competence but is not maximized. In line with research conducted by Fahrurrozi et al., (2020) The purpose of this study was to evaluate the feasibility of using Google's classroom-based digital teaching resources as a learning innovation during the pandemic to improve students' digital literacy. The research approach used is a quantitative method with a non-equivalent control group design for pre and post tests. The sample was taken as many as 72 students of Elementary School Teacher Education, State University of Jakarta in the fourth semester as a sample using the straight random sampling method. This study shows the great benefits of using Google Classroom-based digital teaching tools to increase students' digital literacy levels. Digitally literate students are better able to absorb, study, analyze, and evaluate the digital information they get to avoid hoaxes and inaccurate information. These digital teaching resources built on Google Classrooms have been created by integrated researchers with skills in digital literacy, including web browsing, hypertext navigation, content evaluation, and knowledge synthesis. The findings of this study can help teachers in this epidemic by offering suggestions and ideas for creating digital teaching resources that can improve student quality and creativity.

Where the assignment method individually or in groups given by the teacher can train students to carry out the competencies to be achieved, first, namely students can think critically which is interpreted as the ability to reason to understand and make complex choices. Second, students are expected to collaborate where it is an ability to work together and adapt to various parties so that they can fill each other's weaknesses and strengths. Third, students are expected to be able to communicate well in receiving messages conveyed by other parties so that there are no misunderstandings. Fourth, students must be able to develop new ideas to others because a person's creativity depends on his creative thinking in producing new discoveries.

CONCLUSION

A number of processes of implementation, monitoring and evaluation and presentation of analysis of the data described in this study accentuate the improvement and development of online learning offerings using the google classroom application among elementary school students. With that, the research that has been carried out at the Ruteng I SDK reveals two important things that become evaluative notes regarding the effectiveness of using this digital device. *First*, the effectiveness of online learning using google classroom media in the Ruteng I SDK has been running effectively. As with the pace of development of science and technology today, which is so fast, it greatly affects the world of education to improve its quality. The use of technology in learning using various special platforms also has a positive impact on teachers and students, where they can learn without being limited by space and time. *Second*, using google classroom media for online learning is expected to increase students' competence in online learning at the Ruteng I SDK. In order to get the results, students need to go through the learning process first. The achievement of student competencies is obtained through measuring student abilities. This competency is used to make a clear assessment of the success in an activity. As in the Ruteng I SDK, with the learning model using google classroom, the average student understands the material being taught, besides that they also do their work well. Therefore, it is suggested that it is important to examine two important things; *first*, reviewing reference sources related to the discussion of the effectiveness of online learning in the google classroom media in order to increase the competence of more and more relevant students so that the results of their research can be better and maximal. Second, carefully prepare everything related to research starting from the data collection process, data processing, and drawing conclusions so that the research carried out gets good and useful results for the future.

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