

# THE INFLUENCE OF GOOGLE SITES ASSISTED QUIZZZ LEARNING TO IMPROVE STUDENTS LEARNING OUTCOMES IN SMKN 3 TAHUNA

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## ABSTRAK

**Abstrak:** Tujuan penelitian ini adalah untuk mengetahui pengaruh pembelajaran *google sites* berbantuan *quizizz* untuk meningkatkan hasil belajar siswa SMKN 3 Tahuna. Jenis penelitian ini menggunakan kuasi eksperimen dengan desain penelitian *Non Equivalent Control Group Design*. Sampel penelitian menggunakan kelas X listrik B sebagai kelas eksperimen dan X listrik A untuk kelas kontrol. Instrumen penelitian yang digunakan berupa tes hasil belajar siswa. Kemudian analisis data penelitian menggunakan uji t-test. Pada hasil data penelitian menunjukkan rata-rata nilai *posttest* hasil belajar siswa pada kelas eksperimen 83,5 sedangkan pada kelas kontrol 72,5. Data hasil analisis dengan menggunakan statistik uji t dengan nilai signifikansi  $0.012 < 0.05$ . Berdasarkan pada kriteria  $H_a$  diterima dengan menolak  $H_0$ . Kesimpulannya, bahwa rata-rata hasil belajar siswa yang mengikuti pembelajaran *google sites* Berbantuan *quizizz* Untuk Meningkatkan Hasil Belajar Siswa yang lebih tinggi hasil nilai rerata belajarnya dibandingkan dengan model konvensional SMKN 3 Tahuna.

**Abstract:** *The purpose of this study was to determine the influence of google sites assisted quizizz to improve student learning outcomes at SMKN 3 Tahuna. This type of research uses a quasi-experimental research design with a Non Equivalent Control Group Design. The research sample used class X electricity B as the experimental class and class X electricity A for the control class. The research instrument used was a test of student learning outcomes. Then analysis of research data using the t-test. The research data showed that the average posttest score of student learning outcomes in the experimental class was 83.5 while in the control class it was 72.5. Data analysis results using t-test statistics with a significance value of  $0.012 < 0.05$ . Based on the criteria  $H_a$  is accepted by rejecting  $H_0$ . In conclusion, the average learning outcomes of students participating in Quizizz Assisted Google sites learning to improve student learning outcomes are higher than the conventional model of SMKN 3 Tahuna.*

## A. INTRODUCTION

Education is something that is mandatory and every human being needs education because only intelligent resources can build a better nation. Human resources are incomplete without natural resources, progress in natural resources is evidenced by technological advances. The development of the quality of human resources must be in line with the rapidly growing level of scientific and technological progress. Education is a change in one's attitude and behavior in an effort to mature humans through the learning process. The educational process also leads to the formation of attitudes, intellectual development, and development of students' skills so that the direction

and goals can be achieved. Because the purpose of education is basically to lead students towards changes in behavior, both in the form of knowledge, attitudes, morals, and socially so that they can live independently as individual beings and live well in society as social beings (Hasanah, 2021). Education plays a very important role in the process of improving the quality of human resources. In the educational process, various factors that can improve student academic achievement must be considered properly (Laa et al., 2017).

In the era of globalization, science and technology are developing rapidly. so that learning methods must adapt to the times. This aspect affects all aspects of human life. One of them is in the

educational aspect, namely the presentation of learning material using technology. One of the technologies that affects learning is internet technology and facilitates learning because it can be done anywhere and anytime as if there are things that are not possible for the implementation of learning in the classroom. When the COVID-19 pandemic is happening as it is today and according to circular letter concerning guidelines for organizing study from home during the emergency period of the spread of Covid-19 namely by distance learning or online learning (Mendikbud No 4 Tahun, 2020).

Online learning is carried out by utilizing the development of information and communication technology. Information technology can be accepted as a medium in carrying out the educational process, including assisting the teaching and learning process, which also involves searching for references and sources of information (Wekke & Hamid, 2013).

Online learning aims to provide quality learning services in a passive and open network (Online) to reach more and wider audiences (Adhe, 2018). Especially in the current era by utilizing modern era digitalization technology. In the modern era, now everything is made easy with very rapid technological advances. This has also penetrated the world of education, which requires us to be able to master certain technologies so that we can keep up with changes in more advanced generations so that we can be ready for the competition in the globalization era.

The role of schools in the 21st century is an important part of the education system and society (Andini, 2019). One component of the school that has a role as the spearhead of education is the teacher. Teachers need to be prepared to improve the quality of their competence supported by technology, so that the quality of education increases (Aisy & Hudaidah, 2021). This is due to changes in the industrial revolution 4.0, namely rapid technological developments that have an impact on education because there is a need for education to constantly improve the efficiency and effectiveness of learning and management of the education system (Prasetyo, 2019; and Wiyono & Zakiyah, 2019).

The demands faced by teachers are getting bigger and stronger, so there is no other solution except for educational institutions having to prepare

and provide human resources, namely professional teachers (Jamaluddin, 2014; Utamy et al., 2020). Professional teachers, namely teachers who have four competencies. The four competencies are pedagogic, personality, professional, and social. Pedagogic competence is the teacher's ability to provide understanding, design, implementation during the learning process, evaluate and understand students' interests and talents (Jamaluddin, 2014; Purwadhi, 2019).

Personal competence is a teacher who reflects a positive personality such as, patient, disciplined, humble, honest, polite, empathetic, noble, sincere, acting according to legal and social norms (Poerwandari, 2005). Professional competence is the teacher's ability to master material, curriculum, and use of technology. Social competence is the teacher's ability to interact effectively with students, educators, parents/guardians of students, and the surrounding community (Akbar, 2021).

Vocational High School (SMK) is an institution devoted to preparing students to have abilities, skills and expertise, so that graduates can develop their areas of expertise when they enter the world of work. SMK education itself aims to improve the ability of students to be able to develop themselves in line with the development of science, technology and the arts, as well as to prepare students to enter the workforce and develop a professional attitude. The role of a very significant person in the teaching and learning process includes many things, for example as a teacher, class manager, supervisor, motivator, counselor, exploratory (Sumiati, 2018). Based on the teacher's role, of course the teacher must condition the situation in the class so that learning does not run monotonously, in this case the teacher is required to be creative and innovative so that learning goes well (Ridwan et al., 2022). This certainly affects student learning outcomes as well. This is because learning outcomes are a reflection of a learning (Wajong et al., 2020).

Based on field observations conducted at SMK Negeri 3 Tahuna that when it had an impact on government enforcement with online learning in schools, the school, especially teachers, found it difficult to convey remote learning to students considering that there was no LMS (Learning management system) or e-learning at the school. Furthermore, so far considering that there is no LMS

in the school, teachers use WhatsApp chat-based learning information to students so that learning is not optimal. Then students find it difficult to do the task of remembering the information and material conveyed by the teacher only via WhatsApp without the support of providing complete material (in this case there are no learning videos or learning meeting files). When given a learning evaluation, in this case daily tests, it turns out that student learning outcomes are still not optimal, as can be seen from the average student score less than the KKM, which is 75. Thus, learning is needed that adapts to the existing problems at SMK Negeri 3 Tahuna at once. the policy of online learning during the covid 19 pandemic by utilizing the digitization of web-based learning, one of which is learning services with Google sites. In line Zainal & Kasmawati (2021) said learning by using Google site media is useful in optimizing distance learning and is practical in using internet-based digitization. This is of course supported by the ease of providing information on the Google Sites website page which contains various learning resources through video, text and images during a pandemic imposed by the government with the aim that learning can be carried out in a structured manner to facilitate students to achieve learning goals (Adzkiya & Suryaman, 2021; Jubaidah & Zulkarnain, 2020). Of course, this is the government's support, especially the world of education, in seeking the implementation of distance learning, one of which is learning using Google sites.

Learning google sites as a web-based learning support application that can be used during the distance learning process. And used for group or personal needs. as well as a learning tool to assist students in accepting, by using learning media websites based on Google sites. The advantages of Google Sites are that the appearance can be customized on all devices, can be accessed on laptops, smartphones, PCs, tablets connected to the internet network, can store material, has features, saves costs, time and space. Furthermore, with the support from Quizizz, it makes learning more complex because in Quizizz it is an interesting and fun learning evaluation of student learning outcomes (Al Mawaddah et al., 2021; Sunardi, 2020). Thus learning with Google sites as a means of providing

information in the form of learning materials that are presented in full supported by text, video, image and quizizz features as a complement to learning evaluation facilities in a distance learning facility.

Based on the background that occurred which resulted in low student learning outcomes and the method of learning that the teacher did, especially in the basic subjects of electricity and electronics, which needed to provide clear, detailed information supported by adequate learning media facilities, it was strongly suspected that they could affect student learning outcomes. Therefore the purpose of this study was conducted to analyze whether or not there was an influence on student learning outcomes after implementing the use of the Google site Assisted quizizz Learning in improving student learning outcomes at for Basic Electrical and Electronics.

## B. RESEARCH METHOD

Research In this study using the Quasi Experimental Design method with the research design used is the Non Equivalent Control Group Design. Furthermore, the place of research is at SMK Negeri 3 Tahuna. The population in this study were all students of class X at SMK Negeri 3 Tahuna academic year 2022/2023 which consisted of 2 classes, namely class X A, X B. Furthermore, sample selection involved a sampling technique to determine which sample to use in the study. The samples from this study were taken randomly, namely class X A as the control class with 20 students and class X B as the experimental class with 20 students. The instrument used is the learning outcomes test, namely a test to measure the extent to which students understand the basics of electricity and electronics. This learning outcomes test is in the form of objective questions given before and after students study the material by applying the Google Sites learning approach assisted by Quizizz and the learning model. conventional. The form of the questions consists of 25 objective questions that will still be tested for validity and reliability. Furthermore, the data analysis technique used in this study hypothesis testing begins with a requirements test, namely the normality test with Liliefors and the homogeneity test with the F test and the hypothesis using the T test

### C. FINDINGS AND DISCUSSION

This research was carried out at SMK Negeri 3 Tahuna in the odd semester of the 2022/2023 academic year. And the data from this study were taken from two classes, namely class XA (control class) and XB (experimental class) with a total of 20 students in each class. The data taken is data from student learning outcomes in the basic subjects of electricity and electronics, especially in electronic component material obtained from the difference between the pretest and posttest, which can be seen in table 1 below.

**Tabel 1.** Results of the control and experimental groups

Group	Treatm ent	Min Value	Max Value	Average value	Varian s
Eksperi men	Pretest	30	50	37.75	40.72
	Posttest	75	95	83.5	39.73
Control	Pretest	25	40	32.25	30.20
	Posttest	60	85	72.5	59.21

(Source of research data)

Based on table 1 above, the results for the experimental group obtained an average value for the pretest of 37.75 while for the posttest of 83.5. Then for the control group, the mean value for the pretest was 32.25 and the posttest was 72.5. Thus the results obtained from the two groups, both experimental and control, experienced good progress, especially in terms of learning outcomes. Next, the results of the normality test for the two groups can be seen in table 2 below.

**Tabel 2.** Obtain the normality test results

Group	df	Pcount	Alpha	Conclusion
VIII A (control)	20	0,158	0,05	Normal
VIII B (eksperiment)	20	0,166	0,05	Normal

(Source of research data in SPSS 16)

Based on table 2 above, the normality test results for the control group were obtained at  $0.158 > 0.05$ , so the resulting criteria obtained normally distributed data. Likewise for the experimental group, it was obtained that  $0.166 > 0.05$  had normal distributed data criteria. Thus the two data for each group have normally distributed data. Furthermore, the results of testing the homogeneity of the student pretest data in this study used the F test, through the SPSS 16 software with the variance criteria for both classes being homogeneous if  $F_{count} < F_{table}$ . knowing the criteria for the same class variant, of

course it is necessary to test the results of homogeneity, which can be seen in table 3 below:

**Tabel 3.** Obtain the homogeneity test results

Df	F <sub>count</sub>	Sig	Criteria	Conclusion
40	1,348	1.07	Sig > 0.05	Homogen

(Source of research data in SPSS 16)

Based on table 3 above, the acquisition of homogeneity test results for the acquisition of student learning outcomes in basic electricity and electronics subjects was obtained at a significance value of  $1.07 > 0.05$ , so the resulting criteria obtained homogeneous data. Thus the acquisition of homogeneity test results proves that the variance of student learning outcomes in the basic subjects of electricity and electronics in the two groups is homogeneous. Furthermore, after carrying out the research prerequisite tests of normality and homogeneity, a T test was carried out to determine the level of influence of the two groups which can be seen in table 4 below.

**Tabel 4.** Obtain t-test results

t-test for equality of means				
Information		Df	Sig	Mean
Learning Outcomes	Equal Variances assumed	40	0.012	1.706
	Equal Variances not assumed	38.51	0.010	1.706

(Source of research data in SPSS 16)

Based on table 4 above, it is found that the significant value of student learning outcomes in both groups is  $0.012 < 0.05$  so that it can be decided that  $H_a$  is accepted, meaning that there is a significant influence between learning outcomes using quizzz-assisted google sites learning in the experimental class and the control class using lecture learning. The average value of student learning outcomes obtained by the experimental class using quizzz-assisted google sites learning is higher than the control class using lecture learning. Then the difference in the average learning outcomes of the two classes is due to the class using the Google Sites learning model, it can be seen that students play an active role starting from the beginning of the learning process so that it helps students to find their own knowledge more and get used to working together in teams.

The google sites learning model helps students find their own knowledge more. The data already shows that the analytical aspects in the experimental class are higher than the control class because the learning process in the experimental and control

classes is carried out both there is a process of answering problems based on a rational line of thought (Silvanus & Ridwan, 2022). However, what distinguishes between the experimental and control groups is the response to the questions given where references related to basic electricity and electronics learning subjects with the application of quizizz-assisted google sites learning media differ in the acceptance of references/referral material already showing that the evaluation aspect in the experimental class is more higher compared to the control class because in the learning process of the experimental and control classes both carried out a very strong process in the experimental class to respond to problems when between questions and answers a kind of feedback was carried out to directly ask the teacher through quizizz-assisted google sites learning. While the control class applies lecture learning (Silvanus & Ridwan, 2022).

Through quizizz-assisted google sites learning, students can be actively involved both physically and mentally in their learning where students can easily know in detail the components and working principles of basic electricity and electronics learning simulations, as well as groups. TITL students are invited to actively think about identifying problems, express problem-solving ideas, design their own investigations to answer the problems they face, carry out investigations to find answers to the problems they face up to drawing conclusions.

Learning does not only emphasize what is learned but emphasizes how to gain experience students have to learn. Thus learning Google sites assisted by Quizizz, students are actively involved in the process of finding answers to problems or questions besides that it can also train students' thinking skills, especially learning outcomes. The learning effect of Quizizz-assisted Google sites has been shown to lead to effective interactions between students and teachers. This interaction arises because students and teachers can be directly involved in learning and between students are given the opportunity to discuss with each other (Nurmanita, 2022).

Students are quite enthusiastic in the learning process so that the learning objectives for the basic subjects of electricity and electronics can be maximally fulfilled. The application of Quizizz-assisted Google sites learning is able to grow students' own knowledge, can also be fun learning and makes it easier for students to understand the material and actively interact in groups that they do so as to make individuals and groups feel happy and useful. Furthermore, Quizizz-assisted Google sites

learning started for the first time by introducing students to problems in everyday life displayed on Google sites in the form of videos (Nuryati et al., 2022).

Based on the results of the average value it can be explained that the identifying aspects for the experimental and control classes are equally comparable. However, the value of the identifying aspects of the experimental and control classes is in a good category because they have exceeded the passing mark of basic electricity and electronics lessons. Grouping of students in the learning process activities in Quizizz-assisted Google sites to find out potential abilities is higher compared to the control class because in the learning process the experimental and control classes both carried out a process of seeking and exchanging opinions on problem solving.

At the quizizz-assisted Google Sites learning stage, students are faced with problems. Educators are only facilitators, observers of the learning activities that students are doing and are ready to help students if there are difficulties during the learning process. They also guide students by giving practical instructions. so that students become motivated to be able to construct their own thinking. students observe. And. This learning process activity prioritizes student activity as capital for them to try to get results, and as their experience in acting.

In learning activities with quizizz-assisted google sites create opportunities for students to study hard and there is a good relationship between educators and students, and can develop the potential for improvement in student learning outcomes. In this case the teacher assists students in gathering information from various sources and asking questions that can make students think about problems and the information needed to arrive at problem solving solutions. Investigations in order to find solutions to problems are also supported by the exchange of ideas.

The learning outcomes stage includes the ability to analyze (analysis). The average value of the analytical aspects in the experimental class is much higher than the average value of the analytical aspects in the control class. This happened because the constructivist process in students appeared well in the experimental class compared to the control class. This stage shows students' ability to communicate and draw conclusions from problems. students who have a good level of understanding and motivation can improve the quality of learning, so that skills can be implemented optimally.

the last learning is to formulate from the results of problem solving. At this stage students express

ideas and thinking patterns that are used to formulate related problems, the facilitator provides an evaluation of the learning that has taken place. Thus it turns out that several aspects are very influential on student learning outcomes when learning google sites assisted by Quizizz in the basic subjects of electricity and electronics. Quizizz-assisted google sites learning consists of stages of the learning process that can develop individual potential for learning outcomes, student independence. Learning of quizizz-assisted google sites on student learning outcomes is marked by the presence of skills. formulate problems, provide arguments, conduct inductions, and provide judgments (Nuryati et al., 2022).

Based on the results of the research and several relevant studies, it shows that learning google sites assisted by quizizz has an effect on student learning outcomes in the basic subjects of electricity and electronics at SMK Neger 3 Tahuna. One of the characteristics of this learning in the form of problem-solving activities by proving the problem from the real theory of quizizz-assisted google sites learning is that there are student learning outcomes in the learning process for basic subjects of electricity and electronics.

#### D. CONCLUSIONS AND SUGGESTIONS

The acquisition of research results, it was found that the average student learning outcomes obtained in the experimental class using quizizz-assisted google sites learning was 83.5 while the average results obtained in the control class using conventional learning through lectures were 72.5. Then the results of the t-test calculation show that a significant value is obtained at  $0.012 < 0.050$ . Based on the provisions of the t test,  $H_0$  is rejected and  $H_1$  is accepted so that it can be concluded that there is an influence of Quizizz-assisted Google Sites learning on student learning outcomes in basic electricity and electronics subjects at SMKN 3 Tahuna. Descriptively it can be said that the achievement of student learning outcomes in the basic subjects of electricity and electronics is more improved than students in the application of learning carried out by the teacher with lectures.

Furthermore, suggestions in implementing the use of quizizz-assisted google sites, teachers must continue to innovate the delivery of material in a variety of ways so that students are more motivated and interesting in displaying material, task instructions and ease of learning both in class and

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