

The Impact of Using Quizizz Paper Mode on Results Study Student and The realization of Sustainable Development Goals (SDGs) in Elementary School

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ABSTRACT

Research this aim for analyze influence use Quizizz paper mode to results Study students and their contributions in realize objective Sustainable Development Goals (SDGs) in elementary schools. background research this is still low utilization technology in the learning process and its limitations access digital devices for student school basic research This use approach quantitative with quasi-experimental design (posttest only control group design). The sample consisted of from students in the Gugus Ramayana, Kubangkungkung, Cilacap, which is divided in two groups: experimental (using Quizizz paper mode) and control (learning conventional). Data collected through test results study and analyze using the t-test. Research results show that use Quizizz paper mode give influence positive to improvement results Study students ($t = 3.489$; $p < 0.05$). In addition, the learning model this also supports achievement SDGs indicator 4.1 (Asymp Sig. = $0.000 < 0.05$), namely ensure education quality and inclusive foundation. Quizizz paper mode become solution learning based adaptive technology to limitations digital means, as well as push learning interactive and fun. Findings This confirm importance innovation technology simple in support quality education base especially in areas with limitations digital access.

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1. INTRODUCTION

Transformation global education today this is also directed at efforts achievement of the Sustainable Development Goals (SDGs) set by the United Nations Nations. From 17 destinations main SDGs, goals fourth (SDG 4) in general special highlight the importance of "ensuring inclusive and quality education as well as push chance Study throughout life for all" [1]. In context this, education base hold vital role as foundation beginning in form character and competence generation successor nation. Unfortunately, the gap access to source power and technology education in various regions of Indonesia is still become inhibitor main achievement objective the.

Although government has push use technology in learning, in fact Lots school base especially those in the area outskirts or own limitations infrastructure Not yet capable fully integrate digital technology in learning process teaching. Teachers still many rely on method conventional like lectures, assignments written, or learning based book text solely. In fact, learning that is passive and monotonous can lower motivation Study students and

results in low results learning. In addition, students school base in a way psychological need learning that is fun, interactive, and engaging participation active in order to be able to understand material in a way more deep.

During activity observation in the Gugus Ramayana, Kubangkungkung, Cilacap, process learning at the teacher's school only use method conventional which tends to only use books, lectures and focus to mastery knowledge more cognitive put forward memorization material without using learning media based innovative technology. Learning process the felt not enough effective in give experience study for students, the impact atmosphere classroom learning become monotonous and lacking innovative, as a result student fast bored in follow learning so that can influence activeness and understanding student in accept materials and things the can influence results Study student.

Learning that involves student in a way active will influence results Study students. Learning outcomes is ability or skill new owned by students after follow learning. This is in line with opinion Sudjana (2011) results Study is ability new owned by students after carry out the learning process . Students get experience new about new material studied [2] .

In line with development digital technology, world of education experience transformation in method learning. One of the growing platforms rapidly in support the learning process interactive is *Quizizz*. *Quizizz* is application web-based that allows teachers to create quiz interactive For students, good in a way direct and independent. *Quizizz* Game is application education game- based, which brings multiplayer activities to room class and make it in class exercise interactive and fun [3] .

The use of *Quizizz* as a game-based learning medium has been bring change positive in the learning process in class. *Quizizz* offers various tool for make class become fun, interactive, and engaging [4] . *Quizizz* can used for evaluation self student or for measure understanding materials for repair students . However, the implementation of *Quizizz* generally need internet connection and digital devices such as *smartphone* or laptop. This is become challenges, especially for students in the area with access technology limited [5] .

Various type study related with utilization application *Quizizz*, shows the benefits obtained, describing that *Quizizz* Can increase competence every students and expertise students. Utilization of learning media *Quizizz*, is one of the effort accommodate learning media problems in Indonesia that are not Can implemented in a way conventional with other learning based on Technology Informatics and Computers [6] .

Quizizz is application education game-based that brings multiplayer activities to room class and make learning in class more fun and more interactive. *Quizizz* Media own excess that is questions presented in *Quizizz* media own limitation time, students taught for think in a way precise and fast in do questions on *Quizizz* media. Another advantage of *Quizizz* media is answer from existing questions will displayed with colors and images as well as visible on the teacher's computer (as an operator) and in device student will change in a way automatic in accordance with order questions presented [7] .

One of alternative innovation learning that can be bridge limitations digital infrastructure is *Quizizz* paper mode, namely feature from the educational platform *Quizizz* which allows implementation quiz offline without need gadget or internet connection. Teachers play a role as a guiding operator and facilitator quiz using print media (Q-Card) which remains maintain element interactive, competitive, and fun. This feature considered very suitable for applied at all levels elementary school because no only adapt with digital limitations in the field, but also in line with characteristics development cognitive and social child age school base [4] .

Quizizz can help increase interaction between participant students and teachers who are one of them methods and features used in *Quizizz* is feature *Quizizz Paper Mode*. *Quizizz paper mode* is one of the method games played offline with participant students who use paper as the main media. *Quizizz Paper Mode* allows participant students and teachers interact through ask answers displayed on the screen and written down and completed by the participants educate above paper [8] .

Respond challenge this research This focuses on the purposeful use of paper mode *Quizizz* increase results Study students and realize *Sustainable Development Goals* (SDGs) in Elementary Schools.

2. RESEARCH METHOD

Types of research is study quantitative *Quasi Experimental*. The research design applied that is *Posttest Only Control Group Design*. This design involving One group experiments that get treatment and one group control that is not get treatment. Research quantitative have research data in the form of numbers and analysis use statistics [13]. Research this analyze influence Use *Quizizz* paper mode to results learning and realization *Sustainable Development Goals* (SDGs) in Elementary Schools. Research hhis held in the Ramayana Cluster, Kubangkungkung, Cilacap with 104 students Where as many as 51 students as a class experiments and 53 as class control.

Instrument study is tool or facilities used by researchers in collect data for the work become more easy and the results more good, in the sense of careful, complete and systematic so that more easy processed [14]. Instrument study This including tests in the form of question choice double sheet questionnaires and sheets

observation. Testing techniques will used researchers with posttest to class experiments and classes control. Test This used for measure results Study students. Test This will shaped question choice double or test objective. Questionnaire used for see response student to use Quizizz paper mode in realize SDGs goal 4th. Observation done for evaluate aspect psychomotor from student moment studying in class Instrument the test used before used tested validity and reliability.

Data prerequisite test using normality and homogeneity test . Normality test used for know whether the data is normally distributed or not no . The technique used is the Kolmogorov-Smirnov test with $\alpha = 0.05$. The criteria decision : data is normally distributed if mark significance > 0.05 . Homogeneity test used For know whether homogeneous data variance or no. The technique used is Levene's test with $\alpha = 0.05$. The criteria decision : homogeneous data variance If mark significance > 0.05 [13].

The hypothesis test in study This using the independent t-test (*Independent Sample t-Test*) if the data is normally distributed and the Mann Whitney test if the data is skewed abnormal. Hypothesis testing the aim for know average difference in results learning and response about realization of SDGs between students who follow learning use *Quizizz* Paper Mode with those who don't follow learning *Quizizz* Paper Mode.

3. RESULTS AND DISCUSSION

Results

The research results obtained processed use SPSS application. The data taken is results Study student class VI with compare results *post test* written in the form of multiple choice as many as 20 questions in experiments class and control class. Data collection in experiments class at SDN Kubangkungkung 03 and SDN Kubangkungkung 04 using question *Quizizz* paper mode, while in class control of SDN Kubangkungkung 02 and SDN Kubangkungkung 07 using test written normal, no use *Quizizz* paper mode.

Study this involving 104 students Grade VI of elementary school in the Gugus Ramayana, Kawunganten, Cilacap which is divided into into two groups namely 51 students as class experiment or class using *Quizizz* Paper mode and 53 students as class control or class that is not using *Quizizz* Paper Mode or method conventional.

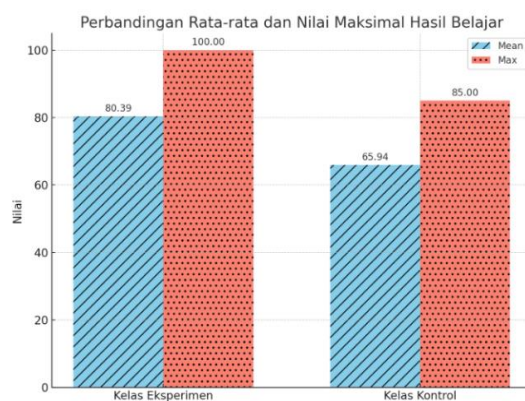
Before done testing to the proposed hypothesis in study this, done data result check study for knowing whether the data is normally distributed or not, as one of the prerequisite tests using requirements testing Kolmogorov-Smirnov test analysis with $\alpha = 0.05$. The results of the Kolmogorov-Smirnov normality test show that that Sig. value 0.074 for class experiment and 0.051 for class control Where both of them own Sig. value > 0.05 which means the result data Study is normal, so can done data analysis using independent t-test.

Next is the result data learning is also tested its homogeneity using Levene's test with $\alpha = 0.05$. The significance value obtained is > 0.05 meaning of the result data Study nature homogeneous. With fulfillment of prerequisite tests this , data analysis can to be continued with parametric tests.

Result data learned what has been through prerequisite tests , then tested hypothesis with the independent t- test (*Independent Sample t-Test*). t value = 3.489 Sig. (2-tailed) = 0.001 < 0.05 then can It is said that H_0 is rejected and H_a is accepted. This means there is significant influence between Use *Quizizz* paper mode to results Study students. With thus, it can concluded that Use *Quizizz* paper mode influential positive to results Study students in class VI of the Gugus Ramayana, Kubangkungkung, Cilacap.

Data analysis based on the t-test show that the average value post test in class experiment or classes using *Quizizz* paper mode of 80.39 with mark highest 100. While the average value post test in class control or class that is not using *Quizizz* paper mode of 65.94 with mark highest 85. With thus the average class experiment more tall than class control.

For provide an overview more clear about difference results study from second group served in form chart following.



Hypothesis testing next is test influence use *Quizizz* paper mode to realization the 4th SDGs goal . Data obtained from filling questionnaire to class experiments and classes control. Before conduct a hypothesis test need prerequisite tests were carried out using requirements testing *Kolmogorov-Smirnov* test analysis with $\alpha = 0.05$. From the results of the Kolmogorov-Smirnov normality test, it shows that Sig. value $0.000 < 0.05$ which means the data results Study the no fulfil condition normality or distributed data not normal, so that can done non- parametric data analysis using the Mann Whitney test. The results of the Mann Whitney test can seen that mark Asymp Sig. (2-tailed) = $0.000 < 0.05$ then can It is said that H_0 is rejected and H_a is accepted . This means Use *Quizizz* paper mode give significant influence to achievement the 4th SDG goal.

Discussion

Research result show The findings indicate that the use of *Quizizz* paper mode has a significant impact on learning outcomes and supports the realization of Sustainable Development Goals (SDGs) 4th, quality and equitable education. This obtained from comparison results post test and questionnaire on students in class experience and class control, where class experiment show improvement results learning and perception positive to learning. In a way statistics Use *Quizizz* paper mode give positive influence to results Study students. This is show that technology in designed learning simple can give benefit big, especially in schools the basis that has limitations digital means.

In this research, the focus is directed at the cognitive domain, namely students' ability to understand and apply the material " Menjelajah Bumi dan Antariksa" in IPAS lesson. *Quizizz*, as a quiz-based medium, helps train students' memory and reasoning skills through varied and challenging questions. Therefore, this theory is relevant. with research that states that test *Quizizz* paper mode-based assessment can improve the mathematics learning outcomes of class VIII students at SMPN 2 Wiradesa [4] . Research results this also supports research that states that There is an influence of the use of *Quizizz* paper mode on student learning outcomes in Pancasila Education learning in grade 5 of elementary school. [8] .

Quizizz paper mode is a game-based learning approach that serves as an important foundation in this research. According to Prensky (2001), game-based learning can increase student motivation, engagement, and learning outcomes because learning activities become fun and less stressful. *Quizizz* creates a healthy competitive atmosphere and makes students enthusiastic about answering questions, even without directly using digital devices. This is evident in the active and enthusiastic atmosphere of the experimental class during the use of *Quizizz* paper mode. This finding aligns with research that states that *Quizizz* increases student activeness and learning effectiveness, especially during the online learning period and its transition. to face advance [3] .

Furthermore, the use of *Quizizz* paper mode also supports the achievement of SDG indicator 4, specifically point 4.1, which aims to ensure all children complete primary education with effective and relevant learning outcomes. This is particularly true in elementary schools that lack internet access or have policies prohibiting access to internet. bring gadget, *Quizizz* paper mode be an adaptive solution to continue to provide technology-based learning. This finding is consistent with the opinion that emphasizes the importance of simple technological innovation to support the equitable distribution of educational quality in Indonesia [1] .

The questionnaire results analyzed using the Mann-Whitney test yielded a significance value of 0.000, indicating a significant difference between the experimental and control classes in their perceptions of achieving SDG 4. The experimental class perceived the learning they received as more enjoyable, interactive, and relevant to current developments. This demonstrates that students are also able to assess the quality of learning based on their own experiences, as described in the student-centered learning approach. In this case, students are no longer objects, but active subjects in the learning process.

This research is also supported by the results of research [4] which states that the use of *Quizizz* Paper Mode in junior high school students can significantly improve mathematics learning outcomes. Despite the different levels of background, the principles of interactivity and flexibility of this media still have a positive impact. *Quizizz* paper mode allows teachers to conduct quiz-based learning offline, without having to depend on the internet or digital devices. This proves that learning innovation is not always synonymous with high technology, but rather creativity in adapting technology to the needs and context of the school.

Quizizz paper mode presents questions in a game format and displays visual colors on the teacher's screen. Students answer in a different way than usual, interacting with the provided paper, which maintains the interactive and innovative spirit of learning. This answers from statement that states that that elementary school-aged children have a short attention span and need visual or auditory stimulation interesting activities [9] .

Quizizz paper mode can be a recommendation for developing inclusive, technology-based learning models. This way, SDGs in education can be achieved more equitably, and disparities in education quality between regions can be addressed. reduced in a way gradually [11] . SDGs are world agreement for increase welfare global society [10] . Inclusive and equitable quality education is one of the objective main *Sustainable Development Goals* (SDGs) 4, focuses on improving access equitable and based education technology push

every institution education for apply innovation technology in the learning process [12] .

Quizizz paper mode not only increase results study student in a way significant, but also strengthens values equal, inclusive and adaptive education to changing times. With use approach this school base can give experience modern learning without must technology dependent high. This is show that success innovation learning no lies in sophistication tools, but rather on how technology used in a way creative and contextual by educators. Therefore, Quizizz paper mode become solution real going to transformation quality and sustainable education.

4. Conclusion

Based on the background of the problem and research findings, it can be concluded that there is a significant influence of the use of Quizizz paper mode on student learning outcomes and the achievement of SDGs 4th in grade VI Elementary School students in the Gugus Ramayana, Kubangkungkung, Kawunganten, Cilacap. This is evidenced by the results of the *t-test* with a Sig. 0.001 value which is smaller than the Sig. 0.05 value which means there is a significant influence. Quizizz paper mode supports the achievement of SDGs 4, especially in the aspect of inclusive and equitable quality education. This is evidenced by student responses through questionnaires distributed to the experimental and control classes where after being tested with the *Mann Whitney test* it was obtained mark Asymp Sig. (2-tailed) = 0.000 < 0.05.

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