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## Effect of Quizz Learning Media on Students' Learning Outcomes

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### Abstract

Technology influences how the education process will be given and how students learn and prepare themselves for a bright future. Technology is expected to solve many problems. This is faced in the education world in Indonesia. Formulation problem study whether There is an influence use of learning media *quiz* to results Study participant educate on the eyes science lessons (science) Natural and Social Sciences) in class IV MI Al-Khairat Sakita. The Study aims to determine the influence of a learning media quiz on the results of the eyes science lessons (science) Natural and Social Sciences) class IV at MI Al-Khairat Sakita. The type of research used is a quantitative study. “ Research quantitative is research that produces new findings that can be achieved (obtained) by using procedures in a way statistics or method other than a quantification/measurement. Research results The significance level used is 0.05, where if the sig value < 0.05, then the question instrument is said to be valid. Table Validity test results are served using SPSS. Research conclusions Based on the analysis results Study, there is a significant influence of learning media quizzes on the results students learn science Class IV MI Al-Khairat Obata District. Bungku Tengah District. Morowali Central Sulawesi Province.

**Keywords:** Interactive Module, Problem Based Learning, Learning Activeness

### Introduction

Education is runway important in the development of a nation. Education is an " effort" conscious and planned for realize atmosphere learning and fun learning so that participants educate in a way active develop potential himself For own religious spiritual power, control self, personality, intelligence, morals noble, and required skills himself and society ” (Annisa 2022) . Amid the era of globalization and the rapid development of technology, quality education become the key main success for students facing future challenges. Therefore, education No can be ignored by anyone, especially in the increasingly fast times like moment This.

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21st century education is very close the relation with development increasingly advanced technology rapid. Technology not only influences how the education process will be given, but also how student learn and prepare himself For facing a bright future. Technology expected capable finish problems that have been This faced in the world of education in Indonesia. 21st century education is in great need of the integration of technology Because can facilitate the learning process and support success education. This is expected capable produce graduates who are qualified and have competitive skills at the global and international levels. International.

The curriculum used moment This is Independent Curriculum, which focuses on developing competence participant educate in a way intact. Curriculum This give flexibility to schools and teachers for adapt learning following needs and potential students, with approach more learning student - centered and relevant with challenge 21st century. Eye science lessons are one of the eye lessons taught in Elementary School in Independent Curriculum. The science subjects are: combination from Science and Social Studies subjects in the curriculum previously. In the Independent Curriculum, eye lessons are simultaneously taught with Name of Science Subject Natural and Social Knowledge (IPAS).

Success learning influenced by various interrelated factors related One with others, one of them use of interesting and interactive learning media. Interactive and interesting learning media can increase results Study students. Learning media own role important in the learning process, especially in situation moment This. Learning media data- based or interactive media based on computer become the right choice, because supported by an interesting program that can increase students' participation. This media is also designed to be easy understood through senses sight and hearing.

One of the medium learning media Lots being talked about in the world of education at the moment This is a learning medium *quizziz*. Various studies about use application quiz as tool help learning show that use *quiz*. Lots give benefit for teachers and educators special in learning students ”. Mukharomah in his research state that application. This more favored Because its operation is easy and can be the right suggestion. Because there are Lots of features that can be used as evaluation like making quizzes, assessments, and rankings between student direct known when student finished quiz given by teacher (Mukharomah 2021) . *Quizizz* offer experience interactive and fun learning through delivery more material pleasant Because Can display videoideo, and interesting and varied quizzes.

Based on research that has been conducted by researchers Previously, learning media *quiz* become one of the learning media that provides influence to results Study students. The results of research by experts is used Study previous give conclusion and reveal that learning media *Quizizz* can increase results Study students. This is what is interesting attention writer For do study more carry on For measure the influence of learning media *quizziz* to results Study students in the eye lesson Knowledge Natural and Social Sciences (IPAS) at MI Al-Khairat Sakita.

Based on results observation beginning the use of learning media by teachers has not give influence results Study significant students, where Still there is a number of students who

score results study it still below Criteria The achievement of learning objectives (KKTP) is 60. This is show that need existence effort For increase effectiveness of the learning process with interactive and interesting learning media to increase student involvement in the learning process. When students are more involved, they tend to be more focused, more motivated, and more active in learning, all of which contribute to the improvement results study. After observations, some problem The main thing at MI Al-Khairat Obata is participant educate experience difficulty in understanding materials and assignments given by the teacher. During the learning process ongoing, students give bait come back positive that describes that they understand with material that has been taught. However, when the teacher gives task Good in Multiple Choice Questions, Essay or *essay* participant educate always experience difficulty For understand question.

## **Literature Review**

### **Instructional Media Quizizz**

Media is a instrument or tool help For convey material learning so that participant educate capable understand what is conveyed use media tools such as marker, book package or reading, board write, including teachers and the environment are also an implementing medium information delivery (Fadilah et al. 2023) . The media is not only limited to tools physique like markers, books, and boards write, but also includes the role of teachers and the environment around in delivering information to students. Next (Saleh, Syahrudin, and et al. 2023) " stated that learning media is essentially is means delivery of information from communicator (teacher) to communicant (student) as recipient ". So, in use of media there is information that you want delivered by the teacher to student with the purpose of the information can with young delivered.

Instructional Media own Lots classification. Among types of learning media available implemented and used in schools is a learning medium game -based, one of the learning media *quizizz*. Application *quizizz* was founded in 2015 by Deepak Joy Cheenath and Ankit Gupta from Bengaluru, India. Purba in (Kusmadewi and Aeni 2022) state that *quiz* is an application education game that brings multiplayer activity to room class and makes learning in class more fun and interactive. Learning Media *quiz* assist teachers in serve interesting quiz for the participants his education. Not only quiz, *quizizz* also presents feature new interesting that is *Lessons* (Yulistiarawati, Umayaroh, and Linguistika 2021) . So that reasonable if the learning media *quiz* be one of choice of appropriate learning media with need learning moment this. More Details Marsya Dara Azzahra and Puri Pramudiani (Azzahra and Pramudiani 2022) state that:

*Quizizz* has two main features: the *Lesson* Feature and the *Quiz* Feature. The *Lesson* Feature has different advantages from interactive media other Because feature *Lesson* completed with text, images, sound and video for make teaching materials and can combine with giving bait come back in the form of quiz in the material slide with form choice double, poll, answer short, question open, and draw. Interactive media This *Quizizz* can make interest student in learning, can make student understand connection mathematics with life everyday

through the images presented, so that the objects abstract hard math imagine, can imagined with easy.

Overall, the above opinion shows that quiz is an effective application used to increase involvement and understanding student in learning. Noor in (Hamran et al. 2023) state that *quizz z* is a web tool for make game quiz interactive For used in classroom learning You for example just For evaluation formative.” *Quizizz* as a learning medium supports the evaluation process and improves experience Study student in a way overall. (Hamran et al. 2023) state that *quizz z* is application learning that can designed such that appearance by the teacher in game form. In the implementation of *quizz z* game, students can practice inside class on electronic devices.

### **Learning outcomes**

Learning outcomes consists of from two words namely results and learning, both words have different meanings (Rahman 2021) . Learn is a process of change behavior the behavior that occurs internally in self individual with efforts to obtain something new, good That in the form of stimulus, reaction or both of them that is stimuli and reactions, because learning is also a human process For reach various type competence, skills and attitudes (Herawati 2020) . Study is not only about memorizing information but also involves deep change in thinking, understanding, and responding to something. Learn is a more process from just gather knowledge. Next Oemar Hamalik in (Rahman 2021) state that " learning is a process of change behavior in demand individual through interaction with environment " .

After the end a learning process, then student will to obtain a results study. According to Tohirin in (Rahman 2021) results learning in question is what has been achieved by students after do activity learning. In addition, the results learning can also interpreted as results from a interaction act learn and act teaching. From the understanding learning and results according to experts Sunarti Rahman explained that results Study is the results that students have achieved after He follow activity learning. The results achieved by students the Can in the form of abilities, both relevant with aspect knowledge, attitudes, and skills possessed by students after He accept experience Study (Rahman 2021) .

Watson in (Andriani and Rasto 2019) state that results Study can defined as something that can done students who previously No can they do. Learning outcomes is changes that occur in oneself student Good from aspect knowledge, skills, and attitude after follow the learning process. Next Molstad & Karseth in (Andriani and Rasto 2019) state that results Study is competencies and skills possessed students who are obtained through the learning process.

From several understanding results Study above, author can conclude that results Study is achievements obtained student after carry out the learning process. This is covers all form knowledge, skills, attitudes and understanding acquired student as results from experience learning. Learning outcomes can measured and evaluated with various way, such as exams, assignments, projects, presentations, and observations.

## Research Method

Types of research used is Study quantitative. “ Research quantitative is type research that produces findings new that can achieved (obtained) by use procedures in a way statistics or method other from a quantification/measurement (Ali et al. 2022) . The research method used is method research *experiment*. According to Sugiyono (2022:72) method experiment is method research used To look for influence treatment in controlled conditions. Form *Quasi Experiment design* used is *nonequivalent control group design*.

## Result

Validity test is a functional test For see whether a tool measuring is valid (authentic) or invalid. The level of significance used which is 0.05 where If sig value.  $< 0.05$  then the question instrument the is said to be valid. Table Validity test results are served using SPSS.

Table. 1 Validity Test Results Question Instrument

No Question	Sig Value	Conclusion
Question 1	0.016	VALID
Question 2	0.037	VALID
Question 3	1,000	NOT VALID
Question 4	0.009	VALID
Question 5	0.048	VALID
Question 6	0.016	VALID
Question 7	0.004	VALID
Question 8	0,000	VALID
Question 9	0.004	VALID
Question 10	0.106	NOT VALID
Question 11	0.036	VALID
Question 12	0.002	VALID
Question 13	0.102	NOT VALID
Question 14	0.001	VALID
Question 15	0.021	VALID
Question 16	0.003	VALID
Question 17	0.006	VALID
Question 18	0.139	NOT VALID
Question 19	0.039	VALID
Question 20	0.010	VALID
Question 21	0.002	VALID
Question 22	0.010	VALID
Question 23	0.056	VALID
Question 24	0.003	VALID
Question 25	0,000	VALID

Testing this instrument against 30 students consisting of 18 students class VI at Mi Al-Khairat Sakita and 12 students class VI at SDN 07 Bungku. Based on Validity test results questions that are done from the total questions choice double as many as 25 grains question,

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21 items were obtained valid questions. Reliability test used For measure consistency an instrument for example questionnaire, test, or questionnaire. That is, reliability test done For see whether tool measuring give stable and consistent results when used in the same conditions at different times. The purpose of conducting reliability testing is For ensure that instrument study No changeable the result when used For measure same thing at different times or in the section different populations, however equivalent.

Table 2 Reliability Test Results

<i>Cronbach's Alpha</i>	<i>N of Items</i>
0.838	21

Reliability test results: After testing the instrument, try it on the Respondent. All items are stated to be reliable. Based on Table 4.2, Cronbach's alpha is obtained at 0.838. The value is  $0.838 > 0.60$  so can it is said that the research instrument This reliable. Difficulty level grain question play role important in measure understanding student in a way accurate. Difficulty level is one of indicators that can used For show quality a grain question whether including in category easy, medium, or difficult. The questions that have been validated and tested its reliability, next will tested level difficulties grain question.

Table 3. Results of the Question Difficulty Level Test

<b>No Question</b>	<b>Difficulty of Questions</b>	<b>Information</b>
Question 1	0.80	Easy
Question 2	0.90	Easy
Question 4	0.27	Difficult
Question 5	0.47	Currently
Question 6	0.80	Easy
Question 7	0.80	Easy
Question 8	0.57	Currently
Question 9	0.73	Easy
Question 11	0.57	Currently
Question 12	0.77	Easy
Question 14	0.40	Currently
Question 15	0.80	Easy
Question 16	0.47	Currently
Question 17	0.87	Easy
Question 19	0.47	Currently
Question 20	0.60	Currently
Question 21	0.77	Easy
Question 22	0.73	Easy
Question 23	0.73	Easy
Question 24	0.40	Currently
Question 25	0.50	Currently

Level test results test instrument difficulty results Study student show There is 1 question with category question difficult, number question 4. Questions with categories

currently totaling 9, including questions 5, 8, 11, 14, 16, 19, 20, 24, and 25. Questions with category easy totaling 11 questions that is question number 1, 2, 6, 7, 9, 12, 12, 15, 17, 21, 22 etc. From the results analysis can categorized The questions used are 4% categories difficult 42% category medium and 52% category easy. Differentiating power is level ability question For differentiate inter-student with ability low (students who have not control competencies that have been set) and students with ability tall.

Table 4 Results of the Distinguishing Power of Questions

No Question	Distinguishing Power	Information
Question 1	0.391	Accepted
Question 2	0.286	Accepted
Question 4	0.396	Accepted
Question 5	0.288	Accepted
Question 6	0.333	Accepted
Question 7	0.451	Accepted
Question 8	0.634	Accepted
Question 9	0.421	Accepted
Question 11	0.273	Accepted
Question 12	0.480	Accepted
Question 14	0.441	Accepted
Question 15	0.352	Accepted
Question 16	0.432	Accepted
Question 17	0.496	Accepted
Question 19	0.320	Accepted
Question 20	0.401	Accepted
Question 21	0.461	Accepted
Question 22	0.350	Accepted
Question 23	0.314	Accepted
Question 24	0.491	Accepted
Question 25	0.555	Accepted

After treatment, the class experiment showed significant improvement, with the score *posttest* lowest of 71 and the highest 100, average 87.94, and standard deviation 7.959. Class control also experienced improvement, but No as big as class experiment. Posttest score lowest control class was 57 and the highest was 80, with an average of 64.35 and a standard deviation 7.322. Increase grades in class experiment Far tall compared to class control, good seen from the difference between the pretest and posttest averages posttest and from mark maximum achieved. Based on statistics descriptive, can concluded that use of *quizz* media very effective in increase results Study students. This is seen from average score increase posttest class more experiments tall.

Normality test done For determine whether data distribution is normally distributed or no. Research This using normality test with criteria testing at significance  $> 0.05$  then the data is normally distributed in *SPPS Windows Ver.22*. The data collected in the Study This in the form of mark *pretest* and *posttest* results students learn science class IV MI AL-Khairat Sakita

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is good class experiment and also class control. The results of the normality test can seen in the following table:

Table 5 Normality Test Results

	Class	Shapiro-Wilk <sup>a</sup>
		Sig.
Results	Pretest A (Control)	.676
	Post Test A (Control)	.071
	Pretest B (Experiment)	.061
	Post Test B (Experiment)	.118

Data is said to be normal if level significant more big from 0.05. If the value significant not enough from 0.05 then the data is distributed not normal. Significant value on the value class *pretest* Control of 0.676. This value show that  $\text{sig} > 0.05$  then the data is normally distributed. Then mark *posttest* class control of 0.71. This value show that  $\text{sig} > 0.05$  then the data is normally distributed. Significant values at the values class *pretest* experiment of 0.61. This value show that  $\text{sig} > 0.05$  then the data is normally distributed. Then mark *posttest* class experiment of 0.118. This value also shows sig value  $> 0.05$  then the data is normally distributed. Thus, Good mark pretest, mark posttest class control, and class experiment are all normally distributed.

### **Discussion**

Use of learning media own role important in help student understand material delivered by the teacher. Media is able to create atmosphere learn more interesting, active, and interactive. Therefore, the presence of learning media moment is one factor in increasing quality education, good from aspect pedagogic both pedagogical and non- pedagogical students. In addition to providing Power pull alone for student For involved in the learning process, the use of learning media is also harmonious with development technology moment This is. This shows that progress technology positively impacts the world of education. Through various types of media, teachers are also helped in explain and convey material that has been prepared, so that the learning process teach become more effective and efficient.

Activity First researcher in Study This that is give pretest questions to class experiments and classes control For know level knowledge beginning student to material How Get All Our Needs. Based on pretest results, the average value for the class experiment was 47.72 and the average class value control was 47.18. Based on the average value of both class on material How Get All Our Needs can concluded that level understanding material class control and class experiment almost The same.

Activity second that is meeting First For activity learning, good class control and also class experiment given the same material. Learning in class experiment using learning media *Quiz* whereas classroom learning control using the media in the book print students. Material at the meeting First is topic Me and My Needs. Activities learning started with greetings,



praying, then do attendance and apperception. The teacher continued with convey objective learning and giving material Introduction. Before enter to core learning activities the teacher invites student For play for a moment “The teacher said ... ..”. The teacher presents material learning gradually through slide-by-slide display, while direct student For focus and listen to every part of the material presented. The concepts are mainly implanted in a systematic way in accordance with competencies you want achieved. At the end presentation, the teacher invites student For answer quiz or questions that have been prepared as form evaluation and reinforcement understanding. As closing material, the teacher inserts quiz on the last slide For test understanding student to the delivered material. After activity said, the teacher gives appreciation to students, reflect on ongoing learning, and close activity class with prayer.

At the meeting learning first, still Lots students who are lacking motivated in follow learning, still There is a number of students who do not focus on the moment learning, seen when the teacher gives quiz, students the No Spirit For answer quiz and results a number of student give insufficient answer right. Based on results observation During the learning process, data was obtained that teacher's ability in manage learning using quizz media reach level success as big as **80%**. Meanwhile that, the result observation to activity student show level success as big as **50%** moment follow learning with the same learning media.

Material at the meeting second is Topic How I Fulfil My Needs. Activities learning at the meeting second almost The same with meeting First. In the presentation material day second, part big student has understand mechanism the learning process is ongoing via Quizizz media. They have know that will the teacher gives quiz, so part big student has focus listen Exposure material given by the teacher. Pictures, videos displayed slide also becomes factor reason student become more focus. Findings This reinforced with Study (Azzahra and Pramudiani 2022) who stated that packaging easy material understood, display attractive colors and images For seen by the eye, also added voice music, this make student feel like currently play while learning, students also feel more challenged and focused his attention become more increase in understand and listen explanation on the material slide next the researcher serve. Based on results observation meeting learning second observation data obtained teacher's ability to manage learning with using learning media quiz with level success by 86.6% and observation data activity student with level success by 74%.

Meeting materials third is continue Topic How I Fulfil My needs ? However with objective Different learning with meeting second. Activities learning at the meeting Third, implementation learning Far more Good from meeting previously. Based on results observation meeting learning third observation data obtained teacher's ability to manage learning with using quizz media with level success by 90% and observation data activity student in learning with using quizz media with level success by 82.8%.

On every meeting happen improvement in activity Study students. Students start involved in a way active and enthusiastic in follow activity learning. Happens change improvement in teacher's ability to manage learning with using quizz media. Activities meeting fifth that is activity For carry out *posttest*. Activities *posttest* implemented in the classroom experiments and classes control For know results Study student after get different treatments. The average value obtained in *the posttest* is For the class experiment 87.94 and class control

64.35. So that can conclude that difference results significant learning after class experiment given treatment with using learning media quiz in his learning.

Instructional Media *Quiz's advantages of its use greatly benefit* activity learning. Quizizz provides features that can interesting attention students, and things the capable make student more focus and more active in learning with follow instructions given by the teacher, so that results Study they get more value satisfying (Utami, Subroto, and Hendratno 2023) .

Instructional Media quizzes used in class experiment positively impact students and teachers because Quizizz media is a learning platform based on very effective technology used in the environment education. With interesting and interactive features, Quizizz is able to create atmosphere fun learning for students, students become more interested and motivated For participate active in activity learning. One of the superiority main from Quizizz is his ability give bait come back in a way direct after student answer every question. This is very helpful student in understand error them and improve understanding material in real-time. In addition, teachers are also facilitated with report results quizzes presented in a way automatic and detailed. Teachers can see score, time workmanship, as well as the most questions trap students, so that can evaluate learning with more Good.

In addition, Quizizz provides library a very broad and ongoing issue developing, which allows teachers to choose or adapt question from user others. Teachers can also adapt arrangement quiz in accordance need class, such as arrange duration workmanship, sequence questions, and activate or disable feature certain. For example, teachers can enable paper mode or paper mode as researchers apply in class experiment, if of course needed. With all superiority In this case, Quizizz is one of the learning media that not only increase focus and discipline students, but also push results learn more good and satisfying.

Have been done testing hypothesis with use *independent sample test* through SPSS application to see how much difference class average value control and class using quiz media in activity learning. Based on results testing hypothesis obtained average test score results students learn science Class IV of MI Al-Khairat Sakita is good class experiment and also class control obtained results that Sig value. (2-tailed) shows value 0.000. This is show that Sig.(2-tailed) < 0.05, namely  $0.000 < 0.005$ , then  $H_a$  accepted, which means there is significant influence use of learning media quiz to results learning science for students Grade IV at MI Al-Khairat Sakita.

Improvement results Study student more significant occurs in classes that use learning media quizizz in the learning process. Students become more focused in accept material learning and more enthusiastic in answering every teacher's questions. Focus and enthusiasm Study the become a number of contributing factors to improvement results Study students. Giving questions with an interesting and fun way makes students more motivated to give correct answers to every question. With quiz motivation student For answer question with Correct That Can increased. Students will read question with more careful, so that the answer right. And students the will get good value. Findings researcher This reinforced with results study (Annisa and Erwin 2021) who stated that learning and giving exercise or fun quiz in application quiziz also makes student Spirit as well as motivated For learn, so that

understanding the early students not enough become more good and understanding material in a way more detailed. Understanding good student increase results Study.

Paper mode or paper mode is one of the features provided by quiziz. Paper Mode feature on Quiziz allows interaction between teachers and students through questions displayed on the screen, while student answer it using paper that has been printed and shared to They. The paper mode feature allows learning interactive still happen in condition limited internet access or device electronics.

Paper mode quiz in Study This used at the time giving question posttest to students in class experiment. At the time do posttest teacher displays questions on screen and students will give answer through paper that has been shared said. Students so enthusiastic and motivated in answer question. The final score that can be direct shown by the teacher after all student answer question, make student more active and soulful the competition increased. They want to give the best answer with the hope that the end he gets is higher. Findings study This in line with findings study (Fauziah and Sofian Hadi 2023) who stated that quizizz Paper Mode applies element competition in learning. There is a comparison scores and rankings student can trigger motivation extrinsic, where students try For reach more results Good from friends classmates. Competition Healthy This can increase Spirit learning and effort student For participate in a way active in learning.

## **Conclusion**

Based on analysis results study there is significant influence of learning media quiz to results students learn science Class IV MI Al-Khairat Obata District. Bungku Tengah District. Morowali Central Sulawesi Province. Based on the results of the t-test, it was obtained average test score results students learn science class IV good class experiment and also class control before and after given treatment (*treatment*) using learning media quiz seen that Sig value. (2-tailed) shows value 0.000. This is show that Sig.(2-tailed) < 0.05, namely 0.000 < 0.005, then  $H_a$  accepted. With thus can concluded that there is significant influence on the use of a learning media quiz to results in student class IV in the subject of Science at MI Al-Khairat Sakita.

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