



Systematic Literature Review (Slr): the Influence of Quizzz Learning Media on Students' Learning Outcomes in Elementary School

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ARTICLE INFO

Keywords: Quizizz, Systematic Literature Review, Learning Outcomes

Received : 25, January

Revised : 25, February

Accepted: 30, March

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ABSTRACT

This study aims to conduct a literature review related to the influence of quizizz learning media on student learning outcomes in elementary schools. In this study using the SLR (Systematic Literature Review) method. Data collection techniques are carried out by finding sources of articles that have similar research in this study. The articles used in this research are 12 national journal articles obtained from the Google Scholar database using the Harzing's Publish Or Perish application. The results of the study show that quizizz is a fun learning medium, because in the quizizz application an educator can add interesting features and can arouse students' curiosity. It can be concluded that the use of Quizizz as a learning medium in elementary schools is very effective in improving student learning outcomes.

INTRODUCTION

Learning for the current millennial generation from elementary to advanced school age can be said to be very closely related to technological advances, this is related to the use of information and communication technology-based educational applications commonly referred to as ICT. In the era of the industrial revolution 4.0, it is a challenge in all fields of science, especially in the field of education because it plays an important role in a nation (Nurhayati, 2020). There must be education that is integrated with an innovative, creative and fun learning base that is integrated with the characteristics of 21st century education for the z and alpha generations in the industrial era 4.0. Therefore teachers must equip students with skills education and learning that is not only innovative, creative, and fun but also critical, constructive, and character thinking skills (Salsabila et al., 2020).

It cannot be denied that the impact of technological developments has positive and negative impacts on human life, which cannot be separated from the application of technology, in this case in learning, which forces learning patterns to change from conventional to the use of better learning technology. This change must begin with a paradigm shift where education must continue to develop with the application of technology which also continues to develop. But unfortunately the development of technology at this time is still not widely mastered by educators, so that in learning it has not been widely used and applied to students (Aini, 2019).

Most of the learning is still ongoing, generally still conventional which is characterized by the teacher as the only source of learning and learning media that is not yet ICT-based, therefore many changes are needed in learning, one of which is the use of effective teaching aids in educational technology to achieve educational goals. . Teachers are required to play a role more than just teaching, but also act as a facilitator so that learning can take place well in the classroom and provide affective, cognitive and behavioral changes.

According to Tafonao (2018) the media is a tool that can be used to guide the process of information, the role of the media in learning is (1) as a channel for messages from the sender to the recipient; (2) as a tool to help students explain something that has been conveyed to them by educators; (3) as a mediator between teachers and students in establishing good relations during the learning process; and (4) as a method for overcoming student boredom during the learning process.

Based on the opinion above, it can be emphasized that teachers need the ability to apply effective and efficient media that will be used in the educational process. According to Wicaksono Yuniani et al., (2019) the role of the media is very important in the learning process so that the material delivered to the teacher arrives quickly and is easily accepted by students. By using the media it is hoped that students will more easily accept or absorb (lesson content) delivered by the teacher. In addition, educators can also use educational media related to technology to broaden and deepen knowledge for themselves and students.

Using media properly will also help smoothness, effectiveness, and efficiency in achieving learning goals and overcoming conventional methods so as to make the learning process more lively (Aulia et al., 2021).

The rapid development of science and technology facilitates the creation of application-based online educational media. There are several variations on online application-based learning media that can be used as learning and are considered quite effective and efficient for learning such as *sway*, *wordwall*, *quizizz* and so on (Mujahidin et al., 2021). In this study the researchers focused on *quizizz* online learning media.

Quizizz is one of the software used in a learning process. According to Muamalah et al., (2023) stated that *Quizizz* is a learning medium in the form of online media to create a presentation of material in the form of interactive quizzes which are enriched with animations and interactions which are very interesting and also easy to use. Meanwhile according to Nurfadhillah et al. (2021) The *Quizizz* application is a web tool for creating interactive quizzes for use in class. *Quizizz* is an online learning tool or application-based media consisting of quizzes, surveys, games and discussion features. Not only that, the *Quizizz* application can also be added in the form of interesting learning materials such as learning videos, pictures and music (Susanti, 2020).

Several studies have shown that the use of educational media *Quizizz* can improve student academic achievement. This is based on previous research Annisa & Erwin (2021) which states that *Quizizz* game-based educational media can result in learning science subjects in elementary school. Furthermore, in research conducted by (Yolanda & Meilana, 2021), they concluded that the use of *Quizizz* increased students' learning interest and focused more on the material presented. Likewise with the results of research conducted by Azzahra & Pramudiani (2022) states that the use of the *quizizz* application makes learning more interesting so that it can make students more interested in participating in learning. The purpose of this research is to conduct a literature review related to the influence of *Quizizz* learning media on student learning outcomes in elementary schools. Based on the problems above, the researcher is interested in conducting research with the title "System Literature Review (Slr): The Effect of *Quizizz* Learning Media on Student Learning Outcomes in Elementary Schools".

METHODOLOGY

This research uses a method called Systematic Literature Review (SLR). This means that researchers do so by recognizing, analyzing, testing, and reviewing all existing research and studying it carefully. With this method, the reviewer evaluates or reconsiders and recognizes the journals to be coherently structured in each mechanism according to the stages that have been determined (Triandini et al., 2019). This research is composed of a number of categories, namely describing the research questions, exploring the literature or bibliography, determining inclusion and exclusion standards, sorting the bibliography, presenting data, working on data and providing conclusions. Research that uses devices and materials, must describe the efficacy of the details of the devices and the types of materials applied. For qualitative research it is important to explain

the role of the reviewer's existence, topics/main thoughts, sources, and data collection methods as well as illustrate the quality/reliability of the data.

First, the question is whether the use of the quizizz application can improve the learning outcomes of elementary school students? The use of the quizizz application is applied to which subjects?

Second, a search for literature studies is carried out on data based on Google Scholar using the Publish or Perish application. The keywords used are "The Influence of Quizizz Learning Media in Elementary Schools" with a minimum article limit from 2018 to 2023.

Third, the inclusion criteria used in the search for literature studies include studies that are intertwined with the conception of various features contained in the quizizz application to support elementary school student learning activities and quizizz media as an application for evaluating elementary school students' learning and research results that have been published in journal or national seminar proceedings. Fourth, the literature obtained was sorted and reviewed based on inclusion and exclusion criteria. Obtained data based on keywords, namely a number of 11 articles. The articles were sorted according to inclusion criteria into 6 articles.

The next stage is that the reviewer enters the article into the table. Then the reviewer considers and reviews the articles seriously/in-depth, more specifically on the components of the research results. In the closing component of the research, the reviewer combines the findings of the several articles and makes conclusions

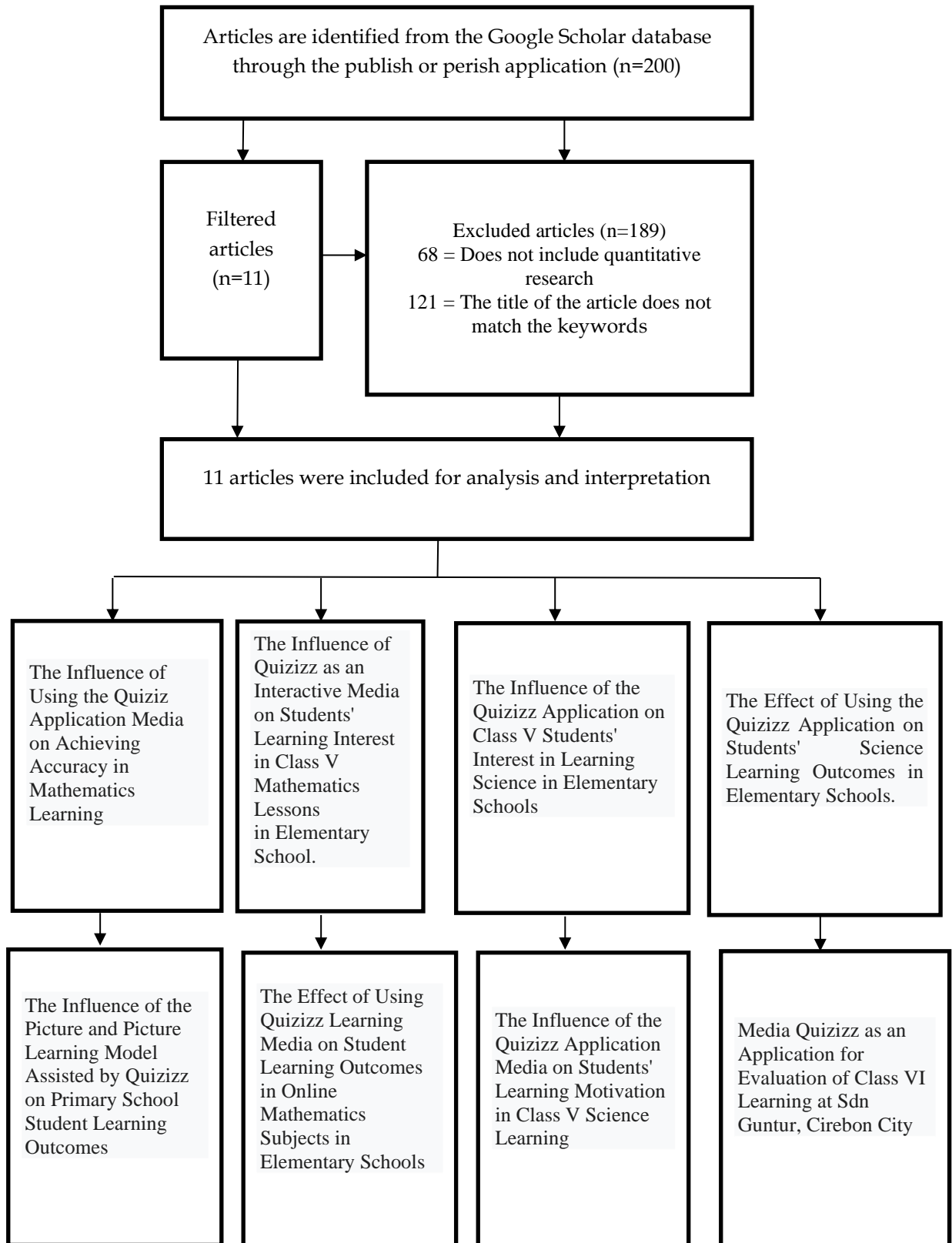


Diagram 1. Journal review flow

RESULTS

The use of the quizizz application in learning is one of the learning media to attract students' interest in improving achievement at school. The quizizz application itself also helps teachers in the learning process to become more active and interactive so students don't get bored quickly in participating in learning activities.

Based on the results of the analysis conducted by the researchers, there were 11 articles related to research on the influence of quizizz application learning media in elementary schools. The data contained in the table is the result of the analysis and summary of the documented articles.

Table 1. Research Results on the Effect of Quizizz Learning Media in Elementary Schools

Researcher and Year	Journal	Research result
(Annisa & Erwin, 2021)	Jurnal Basicedu	The research found that using a fun learning app called Quizizz helped fourth graders in Jakarta learn science better. This app has pictures and quizzes to make learning more interesting, and it works with a video chat program called Google Meet. Students enjoy using the app and it helps them understand science material better, which increases their test scores. Overall, the use of Quizizz has a positive effect on students' science learning.
(Yolanda & Meilana, 2021)	Jurnal Educatio	Quizizz is a cool app that helps kids get interested in science and is a great help for teachers during the pandemic. The researcher believes that fifth grade teachers at SDN 19 Kramat Jati should use it because it is proven to make students want to learn and try their best. When children use Quizizz, they enjoy answering questions and it shows that they really like learning.
(Azzahra & Pramudiani, 2022)	Jurnal Cendekia Jurnal Pendidikan Matematika	Researchers think that teachers should use Quizizz as a fun way for students to learn. This has been proven to work well and make learning more interesting for students. Other researchers can use this research as a starting point to learn more about how Quizizz influences students' interest in mathematics. They can look at other factors that might influence learning as well.

(Lindasari & Arnidha, 2022)	JMP (Jurnal Muara Pendidikan)	This study found that using a game called Quizizz helps students learn math better. The research was conducted in classrooms and researchers used tests and observations to see how well students were doing. They found that Quizizz was a good tool to use because it helped students understand the material better. Quizizz is a fun app that teachers can use to test their students' math knowledge.
(Pusparani, 2020)	Jurnal Pendidikan Dasar : Jurnal Tunas Nusantara	The use of quizizz media as an application for learning evaluation activities is declared effective because it is able to improve learning outcomes and students' understanding of material. In addition, quizizz media is declared efficient for teachers and students because it is easy to use, more efficient in using paper (paperless), and can be done anywhere and anytime.
(Al Mawaddah et al., 2021)	Jurnal Basicedu	Quizizz is a fun educational tool that teachers can use to make learning more interesting. Quizizz has a number of features such as quizzes, games and discussions on various topics that teachers can customize. Educators can even add videos, images, and music to make it more engaging. Students can use it on any electronic device they have. A study found that using Quizizz increased students' math scores at a school in Gresik.
(S. Ramadhani & Rukmana, 2022a)	Jurnal Ideas: Jurnal Pendidikan, Sosial, dan Budaya	After doing research to see if using pictures and a quiz app called Quizizz could help Grade 4 students better learn about the life cycle of animals. We found that it did help them Study. Using images and Quizizz makes it easy students to understand and remember the material. This can be helpful for other subjects as well. Our study can help others who wish to use this method to teach students. We hope more people will try it and see if it works for them too.

<p>(E. Ramadhani et al., 2022)</p>	<p>F. Seminar Nasional pendidikan, FKIP UNMA</p>	<p>Quizizz is a fun app that helps students learn in an interactive way. It has pictures, animations and sounds that make learning entertaining. It's like playing a game, but it's also a quiz that can be played with students in class or at home. There's even a leaderboard to keep things interesting! When teachers use Quizizz in class, students tend to do better and get higher grades. Almost all students who use Quizizz improve their grades, and it's amazing!</p>
<p>(Eminarti et al., 2023)</p>	<p>DWIJA CENDEKIA (Jurnal Riset Pedagogik)</p>	<p>Quizizz is a tool on the internet that helps students learn. It has fun and interactive quizzes to help students learn. It also has slides featuring images and text to help explain concepts. Research shows that using Quizizz can help students understand what they read and become more interested in reading. This is especially true for fifth graders. Using Quizizz can make learning more fun and help students become better readers.</p>
<p>(Widayanti & Purrohman, 2021)</p>	<p>Pengaruh Media Aplikasi Quizizz Terhadap Motivasi Belajar Siswa Pada Pembelajaran IPA Kelas V</p>	<p>The use of Quizizz Media has an effect on increasing student learning motivation because the media requires students to be active, think critically and independently to answer questions and increase student insight.</p>
<p>(Kurniawan & Huda, 2020)</p>	<p>Jurnal Pena Karakter (Pendidikan Anak dan Karakter)</p>	<p>Quizizz is a computer program that helps students learn things in a fun way using their devices. It has cool features like fancy fonts and colors, and provides feedback on whether you answered the question right or wrong. There's even a leaderboard to show who's the best. Teachers can add more fun things to Quizizz to make it more interesting for kids, like giving prizes for success or getting multiple answers at once. A study shows that using Quizizz helps students</p>

		learn better than just using a textbook. During this time we can't go to school, using online programs like Quizizz is very important. Teachers should try to make learning fun with technology that young people like.
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Features contained in the Quizizz Application

Based on the 11 articles analyzed, there are various features and media used in using quizizz as learning media in elementary schools. The following table shows the results of the analysis of media features that are applied in the use of the quizizz application. Presented in table 2.

Table 2. Names of the features contained in the quizizz application

Researcher and Year	Applied Features
(Rahma Annisa & Erwin, 2021)	Tutorial video
(Siska Yolanda & Septi Fitri Meilana, 2021)	Quizizz educational game
(Marsya Dara Azzahra & Puri Pramudiani, 2022)	There are additional features in using quizizz with the Lesson feature, which helps teach using words, pictures, sounds, and videos. And also can make quizzes. Quiz can have different types of questions such as multiple choice, right or wrong, short answers, and even draws.
(Lindasari & Arnidha, 2022)	Quizizz Model Educational Game
(Widayanti & Purnama Syae Purrohman, 2021)	Using cool characters, different backgrounds, and fun music when studying
(Ashimatul et al., 2021)	It has features such as fun quizzes, interesting surveys, cool games and ways to talk to other people.
(Elda et al., 2022)	The quizizz app also includes fun pictures, animations and sounds to make playing fun.
(Eminarti et al., 2023)	Shows pictures and words to explain something. Like a story on a screen that can be touched and used to learn various learning concepts.
(Moch Chabib Dwi Kurniawan & M. Misbachul Huda, 2020)	It features a pleasant background music, beautiful and colorful fonts and designs that let them know if they got the answer right or wrong, and there is a leader board that shows how they

	rank compared to other students. Teachers can add more cool features to make it more fun.
(E. F. Ramadhani et al., 2022)	Use entertaining picture, animation and sound features
(Pusparani, 2020)	Features that can be used such as multiple choice questions, filling questions, and description questions.
(S. A. Ramadhani & Rukmana, 2022a)	Image media as the main media

The Effect of Using Quiziz on Learning Outcomes of Elementary School Students

Based on the 11 articles analyzed, there is an effect of using the quizziz application in learning elementary school students. The following table analyzes the influence of the use of quizziz media presented in table 3.

Table 3. The Effect of Using Quizizz

Researcher and Year	Influence
(Rahma Annisa & Erwin, 2021)	From the testers and criteria $t_{hitung} > t_{tabel} = 3.289 > 2.000$ means H1 accepts. From the results of testing the experimental class using the Quizizz application, the average tended to be higher than the control which used learning videos. Thus, it was concluded that there was an effect of using the Quizizz application on science learning outcomes for fourth grade students at Sumur Batu 08 Elementary School, Central Jakarta. (Good Influence)
(Siska Yolanda & Septi Fitri Meilana, 2021)	The best score is 102 and the worst score is 85. If you add up all the scores and divide by how many, the average score is 91. There is an Influence of the Quizizz Application on the Interest in Learning Science in Class V Elementary School Students. (Good Influence)
(Marsya Dara Azzahra & Puri Pramudiani, 2022)	This can be seen from the final result of hypothesis testing $87.68 > 20.11$. Quizizz has an influence on increasing students' interest in learning mathematics (Good Effect)
(Lili Lindsari & Yuni Arnidha, 2022)	In this case, the average score before practice was 59.39 and after practice the average score increased to 72.65. (Good Effect)
(Ashimatul et al., 2021)	The significance value is smaller than 0.05, namely $0.000 < 0.05$. Thus it can be concluded that there is an effect of using Quizizz learning media (Good Effect)

(Saphira Aulia & Ramadhani Diki Rukmana, 2022)	Kids who use Quizizz and pictures to study do better on tests than ever before. Their average score rose from 63.2 to 80.3. (Good Influence)
(Moch Chabib Dwi Kurniawan & M. Misbachul Huda, 2020)	Students in the experimental class took a test before they learned something new and they got an average score of 62.93. After they had learned some new things, they took the test again and their average score was 85.64. That means they learned a lot and did much better on the second test! (Good Influence)
(E. F. Ramadhani et al., 2022)	Approximately 80% of student scores increase when using Quizizz Interactive Game-Based learning media when compared to not using the learning media. (Good Effect)
(Eminarti et al., 2023)	There is a positive and significant influence on the use of Quizizz learning media on the reading comprehension ability and reading interest of fifth grade elementary school students partially or simultaneously (good effect)
(Pusparani, 2020)	there was an increase in student learning outcomes by 63% in cycle 1 and by 78% in cycle 2. This shows that quizizz is effective in improving student learning outcomes. (Good Effect)
(Widayanti & Purnama Syae Purrohman, 2021)	Based on the results of tcount and ttable above, it is known that $tcount > ttable$ is $13.487 > 2.0084$. With an average of 141 in the experimental class and 106 in the control class, thus H_0 is rejected and H_1 is accepted, which means that there is an influence on students' motivation to learn science between those who use the Quizizz Application Media. (Good Effect)

DISCUSSION

The results of the study show that Quiziz is a fun learning media, because in learning using Quiziz an educator can add interesting features and can arouse students' curiosity. Lots of features that can be added to it such as pictures, music, character figures and so on.

As for the first question about quiziz learning it is very capable of increasing student learning outcomes, this can be proven in several studies that have been analyzed by researchers. On research results Lindasari & Arnidha (2022) the average score obtained before training was 59.39 and after training the average score increased to 72.65. Then on to research S. A. Ramadhani & Rukmana (2022) students who used quizizz and pictures as learning media experienced a drastic increase, from an initial average score of 63.2 to 80.3. Likewise with other studies

that the researchers have shown in the table above that the use of quizziz learning media is very effective in improving the learning outcomes of elementary school students.

Then for the second question about the application of quizziz, the researcher found the research Annisa & Erwin (2021) and Yolanda & Meilana (2021) that the use of quizziz can be applied to science subjects. On research Lindasari & Arnidha (2022) quizziz is applied to mathematics subject material Addition and subtraction of fractions with different denominators. From some of these studies it can be concluded that quizziz is flexible, which means it can be applied in various subjects.

It can be concluded that Quizizz has an effect on student learning outcomes because it contains many interesting features such as videos, pictures, games, quizzes, using cool characters, different backgrounds, fun music during learning activities, and so on.

CONCLUSIONS AND RECOMMENDATIONS

In this study it can be concluded that the use of Quizizz as a learning medium in elementary schools is very effective in improving student learning outcomes because of the many features that can be applied and make students curious and interested in learning. Then quizziz can also be applied in any subject or can be called flexible. From all the results of the articles that have been analyzed, all the articles prove that quizziz has a good influence on improving student learning outcomes in elementary schools.

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