https://journal.ypidathu.or.id/index.php/ijlul/

P - ISSN: 3026-7102

E - ISSN: 3030-8372

Citation: Siswandi, Siswandi., Abdullah, H., Solisa, Z, W., Danial, H., & Winarti, S. (2024). The Impact of Quizlet Learning Media in Increasing Student Interest and Motivation in Junior High School. *International Journal of Language and Ubiquitous Learning*, 2(2), 126 – 140. https://doi.org/10.70177/ijlul.v2i2.962

Correspondence:

Siswandi, siswandi@uin-suska.ac.id

Received: May 27, 2024 **Accepted:** June 15, 2024 **Published:** June 30, 2024

The Impact of Quizlet Learning Media in Increasing Student Interest and Motivation in Junior High School

Siswandi¹, Hazlina Abdullah², Windy Zeanly Solisa³, Haris Danial⁴, Sri Winarti⁵

² Universiti Sains Islam, Malaysia

³Institut Agama Kristen Negeri Ambon, Indonesia

⁴Universitas Negeri Gorontalo, Indonesia

⁵ Universitas Hindu, Indonesia

ABSTRACT

Background. Lately, the influence on student learning motivation has begun to decline due to the lack of teacher mastery of learning media, even though at this time there are many references that can be used as guidelines or references in the process of introducing learning materials, for example by using online application-based learning media.

Purpose. The purpose of this study was to determine the impact of quizlet learning media in increasing students' interest and motivation to learn in junior high school. This learning media can develop skills in reading and writing vocabulary.

Method. This research method uses quantitative methods, data obtained through interviews and distributing questionnaires using Google Form.

Results. The results of this study indicate that the implementation of the quizlet application can help millions of junior high school students in learning online, so that it can increase the value in the learning process to the maximum.

Conclusion. The conclusion of the study can be concluded that students' understanding in the addition of vocabulary increased from before the application of learning with the quizlet application.

KEYWORDS

Distance Learning, Motivational Impact, Quizlet App

INTRODUCTION

Information and communication technology plays an important role in current actions and the next period, one of which is found in the elements of education (Deli, 2019; Pradhan dkk., 2018). One of the good benefits of IT (Information Technology) at the time of modern learning is the ability to carry out teaching and learning without the presence of students (Belkin dkk., 2019; Xiang dkk., 2021), students can learn at different times and places, and interact with students remotely (Birmachu dkk., 2021; Farah & Bilszta, 2022).



From the development of this era, humans must further explore science and technology. One of the media offered in smartphone-based and can be used as learning media is the Quizlet application. Quizlet Learning is an engineered learning tool (Streckienė & Bukšnytė-Marmienė, 2022). and was written by a high school student in the state of California and named Andrew Sutherland. Quizlet is mainly used for language learning (van den Berghe dkk., 2019), but its features are not limited and it can be used in other subjects. Teachers are required to create an interesting learning process, so that it can be an encouragement for students to learn effectively and dynamically.

In the learning and teaching process at the junior high school level during the pandemic period, there are many positive and negative sides to it (Alizadeh dkk., 2021; Scime & Beuth, 2019), this is certainly of great concern in order to increase interest and motivation for students during the distance learning process. students during the Distance Learning process (Makransky dkk., 2020).. At this time, the role of teachers is needed (Fauth dkk., 2019; Longobardi dkk., 2018), they must carry out their professional functions such as how to provide learning materials and how to control and ensure student activities (Bulut dkk., 2021). Media and learning applications are physical devices for mediation and integration and application of media and technology that have a considerable impact on students. Quizlet is an online application template that can be used to design school supplies. In this case, sometimes words are used according to the context and other word choices that refer to the foreign language. And increase knowledge and insight into vocabulary and other features (Aldieri & Vinci, 2020). Researchers also researchers also define that the role of student interest in learning has a very big influence on the value of student achievement and learning outcomes. (Aldieri & Vinci, 2020). because students do something depending on what they are interested in.

Technological development is growing so rapidly at this time (Bahrini & Qaffas, 2019). And technological developments are very beneficial for students, especially in the world of education (Wang dkk., 2019; Yousef dkk., 2018). With this application, students become more participatory in the continuity of the learning process. Distance learning has many advantages in it, therefore online learning should not only be a substitute for traditional (face-to-face) learning (Ahmed dkk., 2021; Xu, 2019). This application provides an influence for students to further improve their intelligence and a place to practice language skills in the form of reading, speaking, writing, and finally listening. In addition, Quizlet supports multiple languages, including a written work in addition to most languages such as English, Spanish, French, Italian, German, Russian, Japanese, Chinese, Korean and Latin (Lundälv, 2019; Rushworth & Hackl, 2022). However, with the implementation of this kind of learning method, students become more dependent on technology with the example of assuming that (Y. Cheng & Yao, 2021), the existence of technology is the only determinant of the learning process.

Reinforcement and encouragement of learning motivation lies in the hands of the teacher (C. Cheng & Yang, 2019). A teacher who has his own role in pedagogical technology and prepares curriculum and is applied in the teaching and learning process (Blau dkk., 2020). Learning motivation is a psychological aspect that a person experiences towards development (Afsar & Umrani, 2019; Oweis, 2018), meaning that this factor is influenced by the condition of physiological readiness and maturity on psychological by a student in the implementation of learning. Students have a great opportunity for institutions to implement motivation to guide students in the use of information technology in this global era and generate enthusiasm for learning (Ganda, 2019), so that students can learn independently and can have active direct interaction (Ramdzan dkk., 2020). The learning outcomes that students obtain in each subject are expressed as grades which are called the end of learning outcomes. Motivation for students in the use of learning

media based on the Quizlet application makes it easier to learn and make as a means of smartphonebased learning (Wang dkk., 2019), and is a free application that is easy to use for both students and teachers.

Improvement in achieving the quality of school education is a must to be achieved (Unterhalter, 2019; Zafar dkk., 2020). The appearance to improve the quality of learning materials is owned by the study, organization, method materials, use of the learning environment and training evaluation (Sihota dkk., 2021; Unterhalter, 2019). The continuity of the application of media learning must also pay attention to the circumstances and situation of students, whether this learning media application can be used in the area or not, because there are many obstacles when teachers instruct their students to use learning media applications. This can have an impact on the level of education. In contrast to urban areas that can have wider internet access to this learning method. Mass media is an interesting study and interests many researchers, although it has other meanings. Learning media plays an important role in generating students' character building values (Bezova & Azara, 2021). Learning mass media that is packaged innovatively can stimulate students' interest in learning, which includes an attractive and innovative learning environment (Li dkk., 2020), and must be developed.

Based on the results of research relevant to the title of the impact of quizlet learning media on students' interest and motivation to learn in this junior high school conducted by (Sari, 2019) states that the Quizlet application has a main function in it, namely developing linguistic intelligence, and the features in it are not only about limited to language vocabulary learning, and this application is also suitable for various sciences such as setting materials or accessing teaching materials using the flashcard feature. In addition, this quizlet application is also practical because it can be used anywhere and anytime we want to access it. This application can also be accessed using laptops and smartphones. Educators become easier in delivering material effectively and creatively, and the learning process also becomes easy and fun in the era of the current millennial generation.

Meanwhile, according to Fitri and Janattaka (2022) with Quizlet, pedagogical competence is one of the skills that must be mastered. This means that educators must know various learning and learning theories, as these theories are often the basis for teaching approaches and methodologies for Educators as methods in learning. Teachers act as facilitators, motivators, drivers, learning engineers and learning inspirations for students. The learning process and results can train the four skills in language, namely: speaking, reading, listening and writing. And Quizlet supports around 145 languages in the world, including Indonesian, Sundanese, Malay and Arabic. This research also explains that the Quizlet application can be downloaded and installed on mobile phones so that students can enjoy interactive information presented through audio visuals. Through this online application-based learning media model, technological developments and Internet sites can make it easier for students to memorize and know vocabulary that has never even been heard or known and many other features that make it easier for teachers to deliver material creatively and effectively. However, in the application of learning media like this, the Quizlet Application also really needs direction and guidance from the educator so that it can run well according to the objectives to be achieved.

Based on previous research, it can be said that there is a difference and a novelty contained in the current research. In this study, researchers gave an expression about an innovation implemented in an online-based learning media system carried out with the Quizlet application, and this innovation can make a container for problems while carrying out the Distance Learning learning method. In this study, researchers also explained the results of the study in the form of a percentage diagram and analysis containing the motivational impact of using the Quizlet application through the Distance Learning Innovation system. And in this study researchers provide information about the learning media model carried out with the quizlet application, the application of this quizlet application can increase the interest in learning and motivation of students because of the amount of latest information that can be obtained through the internet, this method is very effective and efficient because in addition to students being able to get face-to-face learning with educators in the classroom, they can also access the material provided online wherever they are.

Based on the description above, the researcher feels interested in studying more deeply about this, the extent to which educators can apply this online application-based learning media, as an impact of use in increasing student interest and motivation at the Junior High level. The purpose of this study is to find out more deeply how educators apply the use of media applications to learning and find out whether students can accept and use these applications from teachers. The researcher hopes that by using this learning media, students can be motivated to create an open-minded and educated generation. This research is also important so that teachers can implement a learning system that can increase student motivation during the learning period and support student achievement in the results they get. Henceforth, the use of applications and learning environments will be expanded, and various creative functions will be created to arouse students' interest, so that students have a passion for learning and have a lot of inspiration.

The reason why the researcher chose the title The impact of quizlet learning media in increasing students' interest and motivation in junior high school is to more clearly reveal how much influence the application has on students. This research was conducted to prevent a decrease in the spirit of learning motivation in students during the application of Distance Learning and to find out how innovation in learning using online application systems in students in secondary schools. With this study, researchers can find out the results obtained by students during the application of learning using this application and with a learning innovation carried out using learning media based on the quizlet application. Therefore, this research is very important to do in order to generate student interest and motivation so that they can still maximize their learning time and still carry out learning activities as in the system that applies in the classroom as usual.

RESEARCH METHODOLOGY

The research method used by researchers is quantitative method with data collection techniques (Hosseini dkk., 2019; Jian dkk., 2020) namely surveys using questionnaires or questionnaires utilizing the Google Form application. Quantitative methods are researchers' efforts to obtain some information with data in the form of numbers. The use of surveys is in line with the research objectives related to the responses of several teachers and students regarding the quizlet application applied by several teachers at school in the learning process during Distance Learning on the impact of the development of student interest and learning outcomes. This survey method is a method for collecting some amount of data by giving questions along with responses and respondents to several individuals. The purpose of this research was carried out by conducting research at Madrasah Tsanawiyah Muhammadiyah 02 Pekanbaru, the general view is to find out the application in the learning method in the form of the application to bring about the development of changes in student interest and motivation in the school. In this case, where researchers can find out the development of interest (Lazarides dkk., 2019) and learning outcomes directly on the students themselves. So that by conducting this research can obtain information about the impact of Quizlet application learning media on students in junior high school.

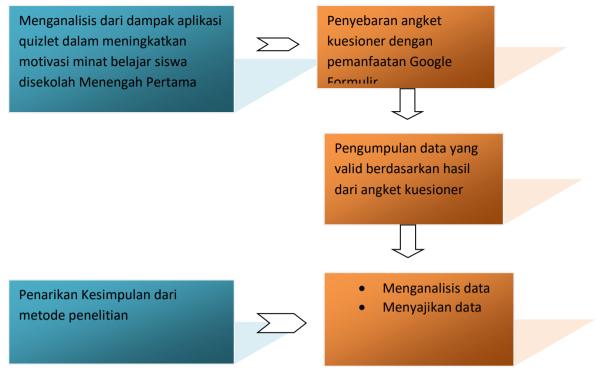


Figure 1.Research format on Quizlet

The time and place of the research was conducted at Madrasah Tsanawiyah Muhammadiyah 02 Pekanbaru. The object of this research is the impact of using quizlet application media for students in Junior High School. In this research survey, a sample of 50 people answering the questionnaire is needed, whose research subjects consist of several teachers and students who use learning methods in the form of this Quizlet application. The results of this study were taken from a questionnaire that had been distributed to several subjects. Therefore, information was obtained from the answers of the teachers and students involved. The data collected from the distribution of the survey will later be presented through quantitative methods by calculating the percentage of each answer to questions related to the subject matter. The method of this study uses an analysis technique, namely statistical techniques (Zhang dkk., 2019) or the so-called data collection method using diagrams. First of all, diagrams are a form of presenting information that is simple and easy for readers to understand. In this case, the reader will understand correctly and not be confused. The data analysis technique is a data processing process that includes examining, processing, and modeling data that is useful for drawing conclusions. This method was chosen because when using this technique, data can become valid and important information using numbers that are easy for people to understand to find solutions to the problems studied.

This study requires researcher observation to get a realistic picture (Gutknecht dkk., 2022; Temple dkk., 2020) of the impact and influence of motivation using the quizlet app learning method. Where students should be able to develop student interest and learning outcomes by applying this learning method. Especially if using quantitative datasets. Thus, researchers can know in detail the development of these students. So the study conducted by this researcher is to conduct a detailed survey using a questionnaire or online via whatsapp media using a questionnaire containing questions that answer questions about the impact and influence of motivation in the application of the quizlet application learning method and researchers get information from these respondents so that it can be a way to conduct research in accordance with the problem at hand.

RESULT AND DISCUSSION

The application of application-based learning media and technology greatly affects the world of education, so educators must use technology in learning. Utilization of technology in education can utilize learning media applications in the form of Quizlet. The benefits of technology in learning can benefit the various worlds of education, so every educator must be able to develop learning media applications. The development of learning environment and technology is planned in accordance with pedagogical goals in such a way that students are born with a sense of passion for learning. This learning environment facilitates students to develop their vocabulary knowledge and ideas for learning. Based on the development of learning media used today, researchers can assess that learning media and technology are learning support tools, which also have great advantages and benefits for students in today's world of education. This shows that learning media applications are currently widely used as a means of supporting the learning interests of average students at various levels of education, especially at Madrasah Tsanawiyah Thawalib Tanjung Limau. The aim is to find out the extent to which the impact of using the Quizlet application learning media on the growth of interest and learning outcomes in students and learning technology can be verified through an evaluation survey on behalf of the research. And the following survey data is attached below as follows:

No	Statement	Answer				
		Agree	Strongly Agree	Disagree	Strongly Disagree	
1.	Many students are already aware of the Quizlet App	53,4%	34,5%	12,1%	1,7%	
2.	With the Quizlet Application, we can see the overall activeness of educators and students.	43,1%	48,3%	8,6%	0%	
3.	With the Quizlet Application, communication becomes broad and effective.	51,7%	44,8%	5,2%	0%	
4.	With the Quizlet Application makes it easy for students to access material both online and textbooks	39,7%	58,6%	3,4%	0%	
5.	With the Quizlet Application makes teachers more effective in implementing learning	48,3%	34,5%	12,1%	5,2%	
6.	With the Quizlet Application as an alternative distance learning (distance) online learning can be done anywhere	39,7%	53,4%	6,9%	0%	

7.	By using the Quizlet App learning can be done face-to-face and online	50%	41,4%	5,2%	3,4%
8.	Students get more new vocabulary by using the Quizlet Application system.	51,7%	39,7%	6,9%	1,7%
9.	With the Quizlet App students can follow learning in accordance with the times	34,5%	62,1%	3,4%	0%
10.	Quizlet application can make students close to technology	44,8%	46,6%	5,2%	3,4%
11.	The Quizlet application can be used as a method in implementing learning	48,3%	44,8%	5,2%	1,7%
12.	With the Quizlet App will support the level of teacher and student activity to be more modern	46,6%	44,8%	10,3%	0%
13.	With the use of the Quizlet Application, teachers are able to control student learning activities	48,3%	39,7%	10,3%	3,4%
14.	With the Quizlet App as an alternative distance learning all media devices can be utilized effectively.	46,6%	46,6%	6,9%	1,7%
15.	With the use of Quizlet App, teachers are able to make learning model settings	53,4%	39,7%	5,2%	3,4%
16.	If there is no Quizlet App, it will make it difficult for teachers in the education and learning process both at school and at home.	36,2%	32,8%	24,1%	6,9%
17.	The Quizlet application makes teachers look for more learning resources from cellphones than books.	36,2%	39,7%	19%	5,2%
18.	The Quizlet application is a necessity for teachers in the teaching and learning process.	44,8%	36,2%	17,2%	1,7%
19.	With the Quizlet Application, it is useful for teachers in adding insight and knowledge.	50%	46,6%	5,2%	0%

20	Quizlet application plays an important	44,8%	41,4%	13,8%	1,7%
	role in delivering learning for teachers				
	in the classroom				

Tabel 1. Results of Questionnaire Distribution

In the table contained above of several statements in the online Quizlet studied by researchers at the Madrasah Tsanawiyah level. Some of the statements generated in some of the questions in Quizlet really help researchers in conducting research on the impact of using learning media in the form of online applications on students in Madrasah Tsanawiyah. The questions tested in this study amounted to 20 questions which contained Quizlet Application statements about the impact, influence, and motivation to learn for students in Madrasah Tsanawiyah. The statement containing that many students already know this Quizlet Application obtained a percentage of 53% with the category of agree choices. The statement containing that the Quizlet Application can see the liveliness of educators and students as a whole with a percentage of 48% with the category of choice strongly agree. This researcher also conducted research on the Quizlet Application to make communication broad and effective with the acquisition of 51% research with the category of choice strongly agree.

The statement on this Quizlet Application which states that the Quizlet Application makes it easier for students to access material both online and textbooks with a percentage of 58% with a category of choices strongly agree. The statement contained in this study shows that the Quizlet Application makes teachers more effective in implementing learning with a percentage of 48% in the category of agreed choices. The statement contained in this study is the Quizlet Application as an alternative to distance learning (distance) online learning can be done anywhere with a percentage of 53% strongly agreeing with the choice category. Statements contained in the study By using the Quizlet application, learning can be done face-to-face and online, gaining a percentage of 50% with the category of choices agreeing. The statements contained in the study The students get more new vocabulary by using the Quizlet Application system with a percentage of 51% in the category of agreed choices.

The statement in this Quizlet Application which states that with the Quizlet Application students can follow learning in accordance with the times obtained a percentage of 62% with the category of choice strongly agree. The statement contained in this study shows that the Quizlet Application can make students close to technology with a percentage of 46% in the category of strongly agree choices. The statement contained in this study shows Quizlet can be used as a method in implementing learning with a percentage of 48% with the category of choice agreeing. The statement contained in this study shows that the level of teacher and student activity to be more modern with a percentage of 46% in the category of agreed choices. The statements contained in this study indicate that by using the Quizlet Application, teachers are able to control student learning activities with a percentage of 48% in the category of agreed choices.

The statement on this Quizlet App which states that the Quizlet App as an alternative distance learning all media devices can be utilized effectively with a percentage of 46% in the agree category. The statement contained in this study shows that using the Quizlet Application is able to make learning model settings with a percentage of 53% in the category of agreeing choices. The statement contained in this study shows that if there is no Quizlet Application, it will make it difficult for teachers in the education and learning process both at school and at home, the

percentage acquisition is 36% with the category occupying the choice of agree. The statements contained in this study indicate that the existence of the Quizlet Application makes teachers look for more sources of lessons from cellphones than books, this obtained a percentage of 39% with the category occupying the agreed choice. The statements contained in this study indicate that the Quizlet Application is a necessity for teachers in the teaching and learning process, this obtained a percentage of 44% with the category of agreed choices. The statements contained in this study indicate that the Quizlet Application is useful for teachers in adding insight and knowledge, this obtained a percentage of 50% with the category of agreeing choices. The statements contained in this study indicate that the Quizlet Application plays an important role in conveying learning for teachers in the classroom, this obtained a percentage of 44% with the category occupying the agreed choice. Research conducted with quizlet application learning media can facilitate students in the implementation of the teaching and learning process carried out by Distance Learning (distance learning) or directly at school.

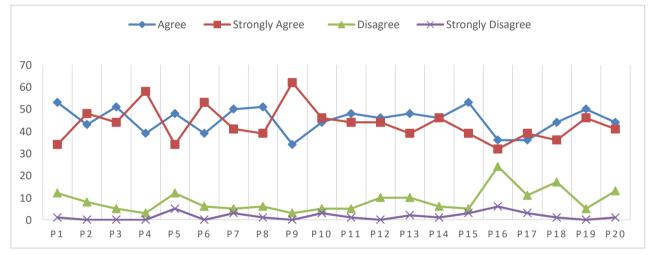


Figure 2. Graph of the distribution of the research questionnaire

In the picture above there is a graph of the Quizlet Application. Data from the results of question testers on Quizlet is as follows: There are 50 educators and students who are the object of the source of research conducted by researchers. In this study, researchers provided 20 questions to test the ability and knowledge of educators and students in answering questions about the Quizlet Application. The highest research results of students obtained a percentage of 62%, based on the results of this study, the category was obtained to occupy the choice of agree (S). The second highest research percentage result obtained was 58% with the category occupying the choice of agree (S). In the third highest research result, a percentage value of 53% was obtained in the category of agreeing choice (S). The lowest Quizlet research results were obtained with the category of strongly disagree choices with a percentage of 0%. In the lowest Quizlet research results with the second order obtained a strongly disagree category with a percentage of 1%. This shows the agree category as the highest category acquisition.

Data on the results of this Quizlet application research test on Madrasah Tsanawiyah students can be described as follows: In the category of choices that occupy the agree section there is a percentage gain of 62%, the category of strongly agree choices is the highest percentage gain of several existing categories. While the lowest percentage gain in the category of strongly agreeing choices obtained a percentage of 32%. In the second percentage gain, namely with the category of agree with the highest percentage gain of 53%, while the lowest percentage gain in the agree category has a percentage of 34%. In the category of disagreeing choices there is data acquisition of the highest percentage of 19%, while the lowest level in the category of disagreeing choices has a

percentage of 3%. And the acquisition of the last research results in the strongly disagree category which obtained the highest result of 6%, while in the lowest level in the category of strongly disagree choices obtained a percentage result of 0%. Based on the overall results of the data contained in the study, educators and students who strongly agree with the questions contained in the Quizlet application obtained the highest result of 62%. While educators and students who do not like Quizlet get a percentage of 6%.



Figure 3. Utilization of Quizlet App

The picture above shows the quizlet online learning media application. The format of this application is in the form of questions related to science, especially education. This learning media is a downloadable tool with students using an android that is easy to carry anywhere. Questions on this quizlet application learning media are usually addressed to students or students. The use of the quizlet application has a big impact on students, especially students at the junior high school level, because the online quizlet application can help students access several questions related to what they have learned. This online survey can also help teachers know the level of student understanding of the material taught online. Quizlet can also make learning fun or interactive because it allows students to know more about vocabulary in foreign languages, for example English, Quizlet is also known as an online application that allows tests, quizzes or editing questions to make them more attractive.

The characteristics of this learning media are that the material in the quizlet application is very easy to see without further explanation in detail, the purpose of the quizlet program is very clear, the instructions for use are fully explained, and the learning flow is also very clear. In this modern era, quizlet applications are needed because teachers and children are more familiar with the internet than answering in material books. Teachers and children in using android are helped in learning, especially teachers or lecturers in the learning process with this quiz. This quiz app has its own appeal for children. The positive effect of using quiz apps is that children can more easily find lessons and keep up with the times. Therefore, children and teachers should know how to use Quizlet properly. Educators can use the quizlet app in the following ways: First the teacher must log in to the account through google www.quizlet.com, then click login, then click the teacher writing as the first step for educators in using the quizlet application, then the educator enters complete personal data such as username, email address and especially password, if the Login text is already displayed in the quizlet application, the teacher can request Create quiz text and the word Create quiz will appear. And for children, you can take the quiz as follows: The first step is to ask students to enter the code and name of the game. The joined students will appear on the teacher's laptop and

the quiz can be started once all students have joined. After that the teacher can just click Start and the online quiz can begin.

The result of this study is the effect of using the quizlet application on increasing student motivation and interest in Junior High School. This quizlet program is used to test how well children understand their learning abilities. With the help of this application, teachers can also easily test how well the child's ability to understand what has been learned. The advantage of this quizlet application is that it is very easy to carry everywhere and can be done at any time, most importantly this application is very convenient to use. Using Quizlet makes students happy and interested in exams who were initially not excited about exams after getting to know the Quizlet application. There are some disadvantages of the quizlet media program, which is dependent on the internet network. If you have a good internet network, then this quizlet application will also work well, but if you have a bad internet network, the quizlet application will not work properly and cannot check the answers filled in automatically.

The research conducted found that those who studied this application were many, the majority of which consisted of children who liked this application in their learning activities. This research method uses quantitative methods where data is collected by distributing questionnaires to get true and valid information. With this qualitative method. This method can also make it easier for researchers to create tables, line charts or graphs in scientific papers with clear sources and sources based on the location studied. The advantages of this quantitative method are that the results obtained are accurate and reliable when used in accordance with predetermined rules, this quantitative method can simplify complex problems, and also the information obtained is clearer and very detailed. And the disadvantages of this method are when the reality of the event is unclear, assumptions cannot be guaranteed, it cannot be used to analyze small samples, data collection starts from the highest value, and this method is not subjective Automatically.

The use of this quizlet media is evidence of student cooperation and in the process of learning enjoyment. This quizlet app is also suitable for use in distance learning, where it is only necessary to enter an email. The quizlet app is a free app that is as easy to use as possible for children and teachers. Quizlet question types are multiple choice, fill in the blanks, check the box and select. In a quizlet application, the number of live quiz participants can reach hundreds or even 700 people. The purpose of this research is to facilitate the learning of teachers and children, in some junior high school educational institutions have used and implemented this application, but there are educational institutions that do not use the quizlet application but still use manual learning. Generally, nurseries that have not used this quizlet application are rural nurseries that have not been explored with modern technology. And educational institutions that use the quizlet application are in urban areas that are explained by technology. Therefore, it is hoped that the government can provide good facilities for educational institutions for learning. Thus, researchers hope that future researchers can adopt this quizlet application as an online quiz media so that it can easily use this resource in accordance with current developments.

CONCLUSION

Based on the discussion on the above research, it can be concluded that learning quizlet application as an online-based learning media can be a reference for students to facilitate teachers and students. Testing the learning outcomes achieved by students through this online application. The results that researchers got in the study of 50 respondents were a diagram explaining how many percent of students agreed, strongly agreed, disagreed and strongly disagreed with the online survey

learning environment and a table of statements about the questions tested to educators and students. So based on the results of research on the performance of the online survey learning environment is included in the category very suitable to be used as a learning environment that can help students understand lessons and increase interest and motivation for the learning process for students.

AUTHORS' CONTRIBUTION

- Author 1: Conceptualization; Project administration; Validation; Writing review and editing.
- Author 2: Conceptualization; Data curation; In-vestigation.
- Author 3: Data curation; Investigation.
- Author 4: Formal analysis; Methodology; Writing original draft.
- Author 5: Supervision; Validation.

REFERENCES

- Afsar, B., & Umrani, W. A. (2019). Transformational leadership and innovative work behavior: The role of motivation to learn, task complexity and innovation climate. *European Journal of Innovation Management*, 23(3), 402–428. <u>https://doi.org/10.1108/EJIM-12-2018-0257</u>
- Ahmed, I., Ahmad, M., Rodrigues, J. J. P. C., Jeon, G., & Din, S. (2021). A deep learning-based social distance monitoring framework for COVID-19. Sustainable Cities and Society, 65, 102571. <u>https://doi.org/10.1016/j.scs.2020.102571</u>
- Aldieri, L., & Vinci, C. P. (2020). Climate change and knowledge spillovers for cleaner production: New insights. *Journal of Cleaner Production*, 271, 122729. https://doi.org/10.1016/j.jclepro.2020.122729
- Alizadeh, R., Abad, J. M. N., Ameri, A., Mohebbi, M. R., Mehdizadeh, A., Zhao, D., & Karimi, N. (2021). A machine learning approach to the prediction of transport and thermodynamic processes in multiphysics systems—Heat transfer in a hybrid nanofluid flow in porous media. *Journal of the Taiwan Institute of Chemical Engineers*, 124, 290–306. https://doi.org/10.1016/j.jtice.2021.03.043
- Bahrini, R., & Qaffas, A. (2019). Impact of Information and Communication Technology on Economic Growth: Evidence from Developing Countries. *Economies*, 7(1), 21. <u>https://doi.org/10.3390/economies7010021</u>
- Belkin, M., Hsu, D., Ma, S., & Mandal, S. (2019). Reconciling modern machine-learning practice and the classical bias-variance trade-off. *Proceedings of the National Academy of Sciences*, 116(32), 15849–15854. <u>https://doi.org/10.1073/pnas.1903070116</u>
- Bezova, K., & Azara, I. (2021). Generating and Sustaining Value Through Guided Tour Experiences' Co-Creation at Heritage Visitor Attractions. *Tourism Planning & Development*, 18(2), 226–244. <u>https://doi.org/10.1080/21568316.2021.1879923</u>
- Birmachu, A. M., Heidelberger, L., & Klem, J. (2021). Rumination and perceived social support from significant others interact to predict eating disorder attitudes and behaviors in university students. *Journal of American College Health*, 69(5), 488–494. <u>https://doi.org/10.1080/07448481.2019.1682001</u>
- Blau, I., Shamir-Inbal, T., & Avdiel, O. (2020). How does the pedagogical design of a technologyenhanced collaborative academic course promote digital literacies, self-regulation, and perceived learning of students? *The Internet and Higher Education*, 45, 100722. <u>https://doi.org/10.1016/j.iheduc.2019.100722</u>
- Bulut, E. C., Ertaş, K., Bulut, D., Koparal, M. Y., & Çetin, S. (2021). The effect of COVID-19 epidemic on the sexual function of healthcare professionals. *Andrologia*, 53(3). <u>https://doi.org/10.1111/and.13971</u>
- Cheng, C., & Yang, M. (2019). Creative process engagement and new product performance: The role of new product development speed and leadership encouragement of creativity. *Journal of Business Research*, 99, 215–225. <u>https://doi.org/10.1016/j.jbusres.2019.02.067</u>

- Cheng, Y., & Yao, X. (2021). Carbon intensity reduction assessment of renewable energy technology innovation in China: A panel data model with cross-section dependence and slope heterogeneity. *Renewable and Sustainable Energy Reviews*, 135, 110157. <u>https://doi.org/10.1016/j.rser.2020.110157</u>
- Deli, (2019). Academic Information System Technology Acceptance Study: Case Study Universitas Internasional Batam. JOURNAL OF INFORMATICS AND TELECOMMUNICATION ENGINEERING, 3(1), 85–93. https://doi.org/10.31289/jite.v3i1.2603
- Farah, S., & Bilszta, J. L. (2022). *Teaching medical students how to interact with the pharmaceutical industry: A scoping review* [Text/html]. https://doi.org/10.3205/ZMA001578
- Fauth, B., Decristan, J., Decker, A.-T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, 86, 102882. <u>https://doi.org/10.1016/j.tate.2019.102882</u>
- Fitri, & Janattaka, J. (2022). Pemanfaatan Aplikasi Quizlet pada Minat Belajar Siswa Kelas 3 SDIT DARUSSALAM. *Arus Jurnal Pendidikan*, 2(2), 138–143. <u>https://doi.org/10.57250/ajup.v2i2.80</u>
- Ganda, F. (2019). The impact of innovation and technology investments on carbon emissions in selected organisation for economic Co-operation and development countries. *Journal of Cleaner Production*, 217, 469–483. <u>https://doi.org/10.1016/j.jclepro.2019.01.235</u>
- Gutknecht, J., Journey, A., Peterson, H., Blair, H., & Cates, A. (2022). Cover crop management practices to promote soil health and climate adaptation: Grappling with varied success from farmer and researcher observations. *Journal of Environmental Quality*, jeq2.20383. <u>https://doi.org/10.1002/jeq2.20383</u>
- Hosseini, S., Ivanov, D., & Dolgui, A. (2019). Review of quantitative methods for supply chain resilience analysis. *Transportation Research Part E: Logistics and Transportation Review*, 125, 285–307. <u>https://doi.org/10.1016/j.tre.2019.03.001</u>
- Jian, C., Luukkonen, P., Yki-Järvinen, H., Salonen, A., & Korpela, K. (2020). Quantitative PCR provides a simple and accessible method for quantitative microbiota profiling. *PLOS ONE*, 15(1), e0227285. <u>https://doi.org/10.1371/journal.pone.0227285</u>
- Lazarides, R., Gaspard, H., & Dicke, A.-L. (2019). Dynamics of classroom motivation: Teacher enthusiasm and the development of math interest and teacher support. *Learning and Instruction*, 60, 126–137. <u>https://doi.org/10.1016/j.learninstruc.2018.01.012</u>
- Li, Z., Sun, Y., Huang, W., Xue, C., Zhu, Y., Wang, Q., & Liu, D. (2020). Innovatively employing magnetic CuO nanosheet to activate peroxymonosulfate for the treatment of high-salinity organic wastewater. *Journal of Environmental Sciences*, 88, 46–58. <u>https://doi.org/10.1016/j.jes.2019.07.011</u>
- Longobardi, C., Iotti, N. O., Jungert, T., & Settanni, M. (2018). Student-teacher relationships and bullying: The role of student social status. *Journal of Adolescence*, 63(1), 1–10. https://doi.org/10.1016/j.adolescence.2017.12.001
- Lundälv, J. (2019). The Challenges of Writing Opinion Pieces in Social Work: A National Online Survey of Swedish Social Workers' Experiences of Influencing Public Opinion. *The British Journal of Social Work*, bcz058. <u>https://doi.org/10.1093/bjsw/bcz058</u>
- Makransky, G., Petersen, G. B., & Klingenberg, S. (2020). Can an immersive virtual reality simulation increase students' interest and career aspirations in science? *British Journal of Educational Technology*, *51*(6), 2079–2097. <u>https://doi.org/10.1111/bjet.12954</u>
- Oweis, T. I. (2018). Effects of Using a Blended Learning Method on Students' Achievement and Motivation to Learn English in Jordan: A Pilot Case Study. *Education Research International*, 2018, 1–7. https://doi.org/10.1155/2018/7425924

- Pradhan, R. P., Mallik, G., & Bagchi, T. P. (2018). Information communication technology (ICT) infrastructure and economic growth: A causality evinced by cross-country panel data. *IIMB Management Review*, *30*(1), 91–103. <u>https://doi.org/10.1016/j.iimb.2018.01.001</u>
- Ramdzan, S. N., Khoo, E. M., Liew, S. M., Cunningham, S., Kendall, M., Sukri, N., Salim, H., Suhaimi, J., Lee, P. Y., Cheong, A. T., Hussein, N., Hanafi, N. S., Mohd Ahad, A., & Pinnock, H. (2020). How young children learn independent asthma self-management: A qualitative study in Malaysia. *Archives of Disease in Childhood*, 105(9), 819–824. https://doi.org/10.1136/archdischild-2019-318127
- Rushworth, P., & Hackl, A. (2022). Writing code, decoding culture: Digital skills and the promise of a fast lane to decent work among refugees and migrants in Berlin. *Journal of Ethnic and Migration Studies*, 48(11), 2642–2658. <u>https://doi.org/10.1080/1369183X.2021.1893159</u>
- Sari, D. E. (2019). QUIZLET: APLIKASI PEMBELAJARAN BERBASIS SMARTPHONE ERA GENERASI MILENIAL. Jurnal Pendidikan Ilmu Sosial, 29(1), 9–15. https://doi.org/10.23917/jpis.v29i1.8150
- Scime, L., & Beuth, J. (2019). Using machine learning to identify in-situ melt pool signatures indicative of flaw formation in a laser powder bed fusion additive manufacturing process. *Additive Manufacturing*, 25, 151–165. <u>https://doi.org/10.1016/j.addma.2018.11.010</u>
- Sihota, P., Yadav, R. N., Dhaliwal, R., Bose, J. C., Dhiman, V., Neradi, D., Karn, S., Sharma, S., Aggarwal, S., Goni, V. G., Mehandia, V., Vashishth, D., Bhadada, S. K., & Kumar, N. (2021). Investigation of Mechanical, Material, and Compositional Determinants of Human Trabecular Bone Quality in Type 2 Diabetes. *The Journal of Clinical Endocrinology & Metabolism*, 106(5), e2271–e2289. <u>https://doi.org/10.1210/clinem/dgab027</u>
- Streckienė, E., & Bukšnytė-Marmienė, L. (2022). Ketvirtokų anglų kalbos žodyno mokymosi pasiekimų ir motyvacijos didinimas: Quizlet įrankio reikšmė. *Pedagogika*, 144(4). <u>https://doi.org/10.15823/p.2021.144.10</u>
- Temple, A. J., Stead, S. M., Hind-Ozan, E., Jiddawi, N., & Berggren, P. (2020). Comparison of local knowledge and researcher-led observations for wildlife exploitation assessment and management. *Environmental Conservation*, 47(4), 304–309. https://doi.org/10.1017/S0376892920000296
- Unterhalter, E. (2019). The Many Meanings of Quality Education: Politics of Targets and Indicators in SDG 4. *Global Policy*, *10*(S1), 39–51. <u>https://doi.org/10.1111/1758-5899.12591</u>
- van den Berghe, R., Verhagen, J., Oudgenoeg-Paz, O., van der Ven, S., & Leseman, P. (2019). Social Robots for Language Learning: A Review. *Review of Educational Research*, 89(2), 259–295. <u>https://doi.org/10.3102/0034654318821286</u>
- Wang, H.-C., Cui, D., Han, J.-L., Cheng, H.-Y., Liu, W.-Z., Peng, Y.-Z., Chen, Z.-B., & Wang, A.-J. (2019). A2O-MBR as an efficient and profitable unconventional water treatment and reuse technology: A practical study in a green building residential community. *Resources, Conservation and Recycling*, 150, 104418. <u>https://doi.org/10.1016/j.resconrec.2019.104418</u>
- Xiang, X., Lu, X., Halavanau, A., Xue, J., Sun, Y., Lai, P. H. L., & Wu, Z. (2021). Modern Senicide in the Face of a Pandemic: An Examination of Public Discourse and Sentiment About Older Adults and COVID-19 Using Machine Learning. *The Journals of Gerontology: Series B*, 76(4), e190–e200. <u>https://doi.org/10.1093/geronb/gbaa128</u>
- Xu, J. (2019). Distance-based protein folding powered by deep learning. *Proceedings of the National Academy of Sciences*, *116*(34), 16856–16865. <u>https://doi.org/10.1073/pnas.1821309116</u>
- Yousef, S., Mumladze, T., Tatariants, M., Kriūkienė, R., Makarevicius, V., Bendikiene, R., & Denafas, G. (2018). Cleaner and profitable industrial technology for full recovery of metallic and non-metallic fraction of waste pharmaceutical blisters using switchable hydrophilicity solvents. *Journal of Cleaner Production*, 197, 379–392. https://doi.org/10.1016/j.jclepro.2018.06.154

Zafar, M. W., Shahbaz, M., Sinha, A., Sengupta, T., & Qin, Q. (2020). How renewable energy consumption contribute to environmental quality? The role of education in OECD countries. *Journal of Cleaner Production*, 268, 122149. <u>https://doi.org/10.1016/j.jclepro.2020.122149</u>

Zhang, R., Chen, Z.-Y., Xu, L.-J., & Ou, C.-Q. (2019). Meteorological drought forecasting based on a statistical model with machine learning techniques in Shaanxi province, China. *Science of The Total Environment*, *665*, 338–346. <u>https://doi.org/10.1016/j.scitotenv.2019.01.431</u>

Copyright Holder : © Siswandi et.al (2024).

First Publication Right : © International Journal of Language and Ubiquitous Learning

This article is under:

