The Existence of the Quizizz Application as the 21st Century Digital Learning Media

Keberadaan Aplikasi Quizizz sebagai Media Pembelajaran Digital Abad ke-21

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Abstract

It is undeniable that increasingly sophisticated and rapid technological developments have penetrated the world of education. Teachers, as educators, are required to be able to operate various kinds of learning media. As time progresses, learning media has also changed from conventional to digital. In the context of the 21st century, digital learning media have been in the spotlight since the pandemic began; one of them is the Quizizz application. Various levels of education, from elementary to tertiary, make this digital medium an alternative medium to be used in learning. This research will discuss the existence of the Quizizz application as the most widely used digital learning medium today. The research method used is qualitative, with a phenomenological approach. The research sample participants were field study students at UIN Sunan Kalijaga Yogyakarta during the period of September–November 2023. Data collection techniques included interviews and documentation. The result of the research shows that the majority of educators tend to choose the Quizizz application as a learning tool in delivering the resultant material, and they can provide feedback for reference material to see the extent of students' responses to the material that has been presented.

Keywords: Quizizz Application, Learning Medium, The 21st Century

Abstrak

Tidak dapat dipungkiri bahwa perkembangan teknologi yang semakin canggih dan cepat telah menembus dunia pendidikan. Guru, sebagai pendidik, diminta untuk dapat mengoperasikan berbagai jenis media pembelajaran. Seiring berjalannya waktu, media pembelajaran juga telah berubah dari konvensional ke digital. Dalam konteks abad ke-21, media pembelajaran digital telah menjadi fokus sejak pandemi dimulai; salah satunya adalah aplikasi Quizizz. Tingkat pendidikan yang berbeda, dari sekolah dasar hingga sekolah tinggi, membuat media digital ini menjadi media alternatif yang dapat digunakan dalam pembelajaran. Penelitian ini akan membahas keberadaan aplikasi Quizizz sebagai media pembelajaran digital yang paling banyak digunakan saat ini.

Metode penelitian yang digunakan adalah kualitatif, dengan pendekatan fenomenologis. Para peserta sampel penelitian adalah mahasiswa studi lapangan di UIN Sunan Kalijaga Yogyakarta selama periode September – November 2023. Teknik pengumpulan data termasuk wawancara dan dokumentasi. Hasil penelitian menunjukkan bahwa mayoritas pendidik cenderung memilih aplikasi Quizizz sebagai alat belajar dalam menyampaikan materi yang dihasilkan dan mereka dapat memberikan umpan balik untuk materi referensi serta melihat sejauh mana respon siswa terhadap materi yang telah disajikan.

Kata kunci: Aplikasi Quizizz, Media Pembelajaran, Abad 21

A. Indroduction

The pandemic period that has hit Indonesia since 2021 has had a significant impact on learning activities in the education sector. This is what inevitably causes the world of education to be touched by the rapid development of IT, especially in the 21st century. So this fact triggers a shift and demands for educators to master how IT is used to communicate indirectly with students. Then, because of this factor, IT development ultimately took first place in various matters, which then gave birth to many innovations in the world of education. Currently, limited movement and space mean educators have to think about possible media that can be used even if they don't meet face-to-face, resulting in the birth of digital-based learning media like today. This limited space and movement then forces educators to continue learning and improving themselves on how to create an atmosphere that remains conducive even though learning is carried out remotely.

Quizizz is one of the many applications whose level of education has received more attention in recent years.[1] Research related to how Quizizz can provide benefits to the world of education has been carried out at the early, primary, secondary, and tertiary levels. Basically, Quizizz is an online-based application with the aim of making it easier for users to access it from their cellphones, tablets, or computers.[2] This convenience makes Quizizz a favorite application for various educational of 4 groups. It is important then to understand what goals and results you want to achieve in using Quizizz as

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[1] Akhyar Hanif et al., 'Development of the QUIZIZZ Platform as an Interactive Quiz-Based Learning Media for Arabic Language Lessons at Madrasah IBTIDAIYAH', *International Journal of Membrane Science and Technology* 10, no. 2 (21 June 2023): 372–84, https://doi.org/10.15379/ijmst.v10i2.1207.

[2] Anh Tuan Pham, 'The Impact of Gamified Learning Using Quizizz on ESL Learners' Grammar Achievement', *Contemporary Educational Technology* 15, no. 2 (1 April 2023): ep410, https://doi.org/10.30935/cedtech/12923.

the learning medium so that the output of what you want to achieve is clear. Is it really an alternative medium for delivering material and making it easier for educators to motivate students because of the ranking system, or is it just following current trends? In fact, apart from the Quizizz application, there are still many things that can be used as digital-based learning media if they are linked in the same context as Google Forms, Quiz.com, Kahoot, Wordwall, Quizlet, EdApp, Easy Test Maker, Online Quiz Maker, and others. So it is necessary to investigate further the reasons why educators choose and use Quizizz as a learning medium, which has an impact on the effectiveness of student learning outcomes.

Based on the background above, the author is interested in raising a research theme related to the existence of Quizizz as a learning medium and whether this application is truly effective and continues to be applied in the world of education. In fact, the choice of various features offered by Quizizz basically makes it easier for educators to modify the statements and questions that will be given. It is hoped that in the future, the results of this research can provide knowledge and insight to various parties in the education sector regarding alternative applications other than Quizizz that can be used to deliver teaching material.

B. Method

This research uses a qualitative method with a phenomenological approach sourced from primary and secondary data. Primary data was obtained from interviews and documentation with several samples that had been assigned to students of field study UIN Sunan Kalijaga Yogyakarta who consistently use the application of Quizizz as a medium for evaluating student learning, while secondary data is in the form of searching literature review related variables to the use of the quizizz application. These two data are then used as a reference in analyzing the factors that cause educators to choose this application as a form and effort to deliver teaching materials and the final evaluation of the learning that has been implemented. The data analysis technique used is data reduction. In the data reduction process there are two processes, namely living in and living out, which are adjusted to research needs. After that, data presentation is carried out and finally conclusions are drawn and verified.[3] The data obtained is then processed based on needs tailored to the research objectives.

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[3] Hardani et al., *Metode Penelitian Kualitatif & Kuantitatif* (Yogyakarta: Penerbit Pustaka Imu, 2020).

C. Result and Discussion

Effectiveness of the Quizizz Application in the world of Education

Research results from several publications show that the use of the Quizizz application as a digital media, whether game-based or a platform for delivering teaching content, is related to the success of students in understanding the learning that has been carried out. Research from Manipurani[4] explains that there is feedback to students so that students become more motivated, to active participate in further learning. The same opinion was also expressed by Mitjans,[5] that there was an increase in student learning outcomes if Quizizz was used as a learning medium. These two research results sufficiently illustrate how effective the Quizizz application is in answering the problems faced by educators so that they are able to provide the desired solutions.

The results of interviews conducted with participants selected by random sampling described that the reason for choosing the Quizizz application as an intermediary in expressing material and media content for learning evaluation was because it was considered more familiar than other applications. Then, from the results of other interviews, information was gathered that the features and templates of this application tend to be uncomplicated and easy to use. Apart from that, as a user, educators do not need to upgrade the application, which usually costs additional money if done. Some samples explain that there are tutorials from previous users regarding how to use this application.

In general, the novels displayed by Quizizz do look simple, provided they can be operated if connected to a good internet connection, therwise then students will continue to bounce and not be able to complete the tasks in the application. Another advantage is that this application provides time and score settings that can be set by educators themselves. Then, the choice of template forms is available in several varieties, such as multiple choice, fill in the blank, labeling, match, reorder, drag and drop etc, which can then be chosen according to the goals to be achieved. Other information from the interview results explains that the use of Quizizz as a learning medium is considered effective. Another convenience is that using Quizizz can be done

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[4] Venkata Ramana Maniparuni et al., 'Improving English Vocabulary Through Quizizz in Practice Tests for Gamification and Google Forms with Autoproctor in Assesment Test for the Preclusion of Malpractice', *International Journal of Interactive Mobile Technologies* 17, no. 13 (2023): 22–43, https://doi.org/10.3991/ijim.v17i13.39445.

[5] Noëlle Fabre Mitjans, 'Kahoot and Quizizz: When Playing in Teams Makes A Difference to Motivate Science News Reading', *Revista Electrónica Interuniversitaria de Formación Del Profesorado (REIFOP)* 26, no. 2 (2023): 129–42.

on each student's device without having to depend on anything else.[6] So students will focus on each cellphone screen to achieve the highest ranking at the end of learning as a means of independent evaluation of the students themselves.[7]

Several participants said that there was an increase in students' understanding of the material that had been taught. This is because students tend to remember and compete with other colleagues. It can be concluded from this statement that one of the ways to recall students' memories is by using interesting media. This is a comparison between technological developments in the world of education and conventional activities. This statement was also made previously by Janković & Lambić[8] which also compared how the use of the Quizizz application significantly increased student academic achievement.

The existence of the Quizizz application at various levels of education

The existence of Quizizz as a forum for conveying material content has attracted the attention of various educational practitioners. Both in business as digital-based learning media and as evaluation material for certain purposes. So the side effect felt by students is the emergence of motivation to be better than before or from other participants. This is because there is a name sequence system that is sorted from highest score to lowest score which is displayed on each desktop screen online.[9] From the interview results, it was found that the majority of the sample chose to use this application because the results of the answers from each student could be used as evaluation material to the extent to which they understood the material that had been presented. Apart from that, another reason behind choosing Quizizz as a medium for communicating with students, namely the recap of answer result data. students are depicted in more detail, making it easier for educators to assess both the accuracy of answers and speed of time, which is not found in other applications.

The recap of the data from the students' answers is then used as a participant to see the extent of their understanding of the material. In fact, a

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[6] Fitriyeni and Wahyu Kurniawati, 'Efektivitas Penggunaan Aplikasi Quizizz Untuk Penilaian Pembelajaran', *Primary: Jurnal Pendidikan Guru Sekolah Dasar* 11, no. 3 (2022): 915–27.

[7] Unik Hanifah Salsabila et al., 'Pemanfaatan Aplikasi Quizizz Sebagai Media Pembelajaran Ditengah Pandemi Pada Siswa SMA', *Jurnal Ilmiah Ilmu Terapan Universitas Jambi* 4, no. 2 (2020): 163–72.

[8] Aleksandar Janković and Dragan Lambić, 'The Effect of Game-Based Learning Via Kahoot and Quizizz on the Academic Achievement of Third Grade Primary School Students', *Journal of Balitic Science Education* 21, no. 2 (2022): 224–31.

[9] Andie Tangonan Capinding, 'Utilization of "Quizizz" A Game-Based Asessment: An Instructional Strategy in Secondary Education Science 10', *European Journal of Education Research* 11, no. 4 (2022): 1959–67.

recap of this data is also presented by quizizz in the form of percentages, number of correct and incorrect ones and the total time in answering the questions provided.[10] The research results by Mahmud and Law, the use of quizizz during teaching and learning activities can have positive implications for students in increasing learning motivation. So this will indirectly impact student's learning outcomes. This is the reason that ultimately makes the existence of Quizizz as digital learning increasingly popular with various levels of education, such as research conducted by Fiaski et al[11] He started implementing this application targeting fifth grader school students. He explained that with Quizizz learning can be online when space and movement in the classroom are limited. Apart from that, using quizizz during learning activities also takes advantage of students' opportunities to use devices for things that have positive value.

This research is one of many trials on the use of Quizizz at the elementary school education level. In fact, quizizz is also applied at secondary, upper and tertiary education levels, as researchers did with field study students as samples in this research. Uniquely at this time, the quizziz application has also begun to be introduced to the elderly with an average age of 41-50 years and 81-90 years to see to what extent the accessibility of internet-based educational games can be used by the elderly to support teaching and positive experiences regarding current digital developments.[12] It was concluded that currently, the implications of the Quizizz application are not only intended for teenagers but can also be applied to the elderly. This then proves that digital-based applications in the world of education do not limit age in using them provided that directions and instructions are given during operation.

Supporting the statement above which explains how popular the quiz application is among various age groups, research obtained from Ismail[13] information that use of this application is 100% well understood by educators and students compared to other applications. This is shown by the results of a survey of 40 respondents (35 women, 5 men) and students at several institutions in the Sumedang area. From this study a set of training and

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[10] Mutia Al-Jannah et al., 'Persepsi Siswa Terhadap Penggunaan Aplikasi Quizizz Sebagai Media Pembelajaran Pada Mata Pelajaran Bahasa Inggris', *Jurnal Guru Pencerah Semesta* 1, no. 2 (2023): 193–202.

[11] Cici Adila Fiaski et al., 'Implementasi Quizizz Sebagai Media Pembelajaran Secara Daring Di SDN 181/II Cilodang', *Jurnal Pendidikan Dan Konseling* 4, no. 3 (2022): 407–17.

[12] Mirkka Forssell et al., 'Accessibility of Kahoot! And Quizizz: Utilizing Educational Games with Eldery Students', *The 11th International Conference on Communities and Technologies* 23, no. 2 (2023): 75–84, https://doi.org/10.1145/3593743.3593760.

[13] Muhd Al-Aarifin Ismail et al., 'Using Kahoot! As a Formative Assessment Tool in Medical Education: A Phenomenological Study', n.d., https://doi.org/10.1186/s12909-019-1658-z.

assistance was held for teachers who were still "stuttering" in operating this application. It is clear that the presence of Quizizz in the midst of civilization in the development of digital-based learning media is able to reach all age groups for different aims and objectives in education so that it is in great demand as an alternative for non-face-to-face communication with students.

Description of the data and research results above reveals that the use of the Quizizz application, both within the scope of students, students and even the elderly, is able to substantially provide various results regarding various aspects such as interests and learning outcomes, adequate knowledge and experience, material for consideration for a things, adjustments to the conditions and learning styles of students, as well as new innovations in the world of education that need to continue to be honed and studied. So the common thread is drawn that, quizizz is not only limited to formal institutions but can also be used by age groups from non-formal institutions.

Examining the Use of Quizizz in the world of Education

Quizizz, as a media that is currently known as an alternative, is considered capable of providing utility to various parties. Roles and functions like this have basically been used long before Kahoot as a digital-based learning media for the same purpose as Quizizz. It is supported by research results from Ismail[14] and Fuchs[15] who first used Kahoot in the world of education. These findings are two of the few studies that have been conducted. This is what then underlies the development of quizizz learning as a material for the use of learning media which is widely used, so that it replaces kahoot's position in the popular digital-based media category.

Several researchers then tried to modify the quizizz research to not only focus on education but also work on health workers and even the elderly. One of the studies conducted in the world of health was carried out by Sabur & Afriani[16] and Narasati[17] in the engineering department. This indicates that Quizizz's existence is no longer only in the context of students' interest, motivation and activeness in learning but is able to provide benefits for various contexts as described. Interestingly, there is still very little research

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[14] Muhd Al-Asrifin Ismail et al., 'Using Kahoot ! As a Formative Assessment Tool in Medical Education : A Phenomenological Study', *BMC Medical Education* 19, no. 230 (2019): 1–8.

[15] Kevin Fuchs, 'Bringing Kahoot ! Into the Classroom : The Perceived Usefulness and Perceived Engagement of Gamified Learning in Higher Education', *International Journal of Information and Education Technology* 12, no. 7 (2022), https://doi.org/10.18178/ijiet.2022.12.7.1662.

[16] Fitriati Sabur and Afriani, 'Pengetahuan Tenaga Kesehatan Tentang S.T.A.B.L.E Program Pada Bayi Pasca Resusitasi', *Media Kesehatan Politeknik Kesehatan Makassar* XVIII, no. 1 (2023): 23–27.

[17] Ninda Ayu Narasati, Rosmawati Saleh, and Riyan Arthur, 'Pengembangan Alat Evaluasi Berbasis HOTS Menggunakan Aplikasi Quizizz Pada Mata Pelajaran Mekanika Teknik Dalam Pembelajaran Jarak Jauh', *Jurnal Pendidikan Teknik Sipil* III, no. 2 (2021): 169–80.

related to the use of Quizizz at the early childhood education level. In fact, early childhood is a golden age that is able to absorb information and knowledge better than adults. The opportunity to conduct research with participant subjects aged five to six years should be a great opportunity to explore further. Because in general research at early foundation educational institutions is only intended for teachers. This means that research objects involving children are still minimal. In fact, we see today that the trend of the generation living in the 21st century is able to keep pace with developments over time.

So it's not surprising that many children under the age of four can already use smartphones. This kind of potential should be what educators can exploit in providing digital-based learning by utilizing internet-based applications, one of which is Quizizz. The research sample explained that there was a significant increase in the use of Quizizz as an evaluation medium for student learning outcomes which was used as a reference for evaluation material from week to week. The following table shows the increase in students' understanding for 4 consecutive weeks:

Table 1. Evaluation of Students' Understanding of Learning Material

Number	Participant	Week 1	Week 2	Week 3	Week 4
1	HES	65	70	95	100
2	YS	73	90	92	95
3	IM	77	50	75	88
4	RNA	70	90	95	97
5	KA	69	100	92	95
6	MS	82	90	100	100
7	HF	96	70	88	96
8	DPRU	76	85	90	95
9	AR	70	90	92	92
10	RDD	66	70	89	94
12	MA	74	90	94	96
13	DAKW	80	80	89	95
14	NF	90	90	94	96
15	VAS	56	70	85	90
16	SA	81	80	89	99
16	AM	76	89	94	94
17	SAA	69	82	86	100
18	A	85	87	88	94
19	TNH	92	90	98	100
20	GPR	65	79	87	96
21	KAU	55	86	88	97

The table above describes the scores of student learning outcomes for 4 weeks with 10 questions in 21 research samples. The scores of the research

sample from the first week to the fourth week increased significantly, although not too high, but remained on a consistent track. This shows the influence of learning media on learning outcomes and student motivation with the final learning goal to be achieved. This will be illustrated more clearly in the following graph:
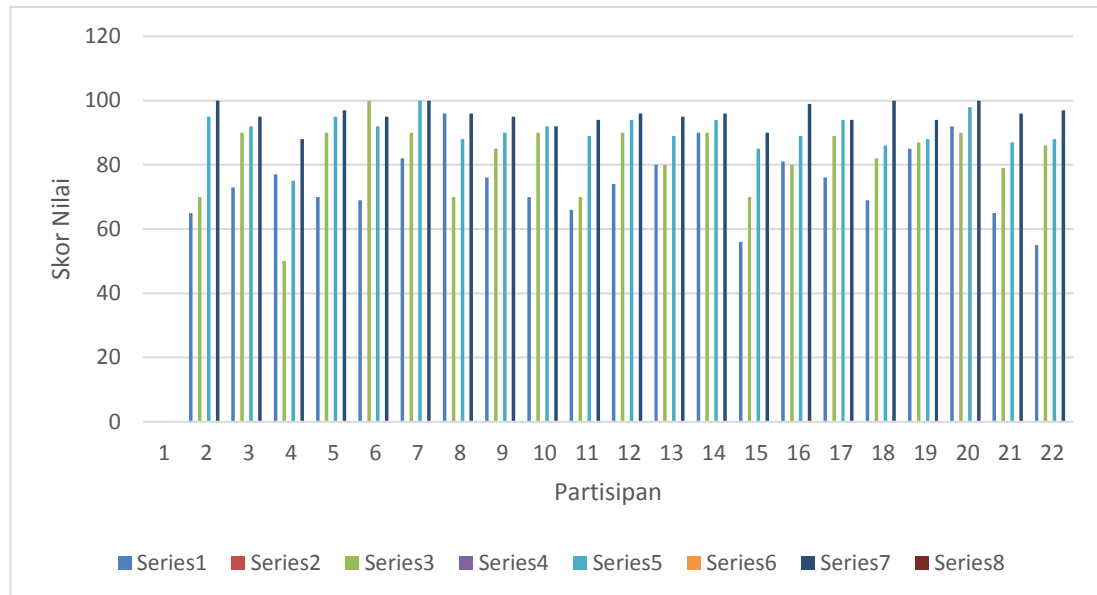

Figure 1. Graph of Student Improvement for 4 weeks

The graph clearly illustrates that there is a consistent increase in each week from the first to the fourth week with learning media using the Quizizz application. The final score in the fourth week was 100 for 4 people and the lowest score was 88 for 1 person.

D. Conclusion

Quizizz has indeed been able to "bewitch" teachers as educators to apply this in every teaching and learning activity. So this must be balanced with the teacher's ability to always be able to upgrade himself so that he does not become someone who is left behind by future technological developments. The hope is that teachers will not only be able to use this application, but will try to modernize it in other varioud applications. This means that teachers are not just stuck on Quizizz, so they are reluctant to learn & improve themselves with other applications. In addition application should also be tested at the early childhood, to see how far young children respond to digital learning media which can be combined with playing while learning activities according to their age stages. This aims to determine whether the use of the Quizizz application in early childhood can also provide

the same positive effect at other levels of education. So as to provide new imagery to teachers early childhood institutions, especially digital-based media that can be implemented in the five to six year age range.

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