



Exploration of the Use of Quizizz Gamification Application: Teacher Perspective

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ABSTRAK

Perkembangan teknologi TIK telah berdampak pada perkembangan industri game, yang membuat guru lebih kreatif dalam merancang proses pembelajarannya. Namun, guru belum sepenuhnya melaksanakan proses pembelajaran dengan menggunakan media berbasis gamifikasi. Penelitian ini bertujuan untuk mengeksplorasi perspektif guru tentang penggunaan aplikasi gamifikasi Quizizz. Jenis penelitian ini yaitu kualitatif. Subjek penelitian yang digunakan yakni terdiri 16 guru kelas dari 5 sekolah dasar. Alat pengumpulan data hanya menggunakan wawancara secara struktur kepada guru kelas. Teknik yang digunakan untuk menganalisis data yaitu analisis deskriptif kualitatif dengan menggunakan Miles dan Huberman. Hasil penelitian menunjukkan bahwa penggunaan gamifikasi khususnya Quizizz sangat bermanfaat dan mendukung para pendidik dalam pembelajaran. Namun banyak pendidik yang mengakui memiliki hambatan: mulai belum mengenal sistem gamifikasi; kesulitan dalam pembuatan gamifikasi; belum adanya pelatihan dan sosialisasi serta pendidik tidak mengetahui fungsi kelebihan dan kelemahan gamifikasi itu sendiri. Tantangan dan hambatan tersebut tentu memerlukan adanya dukungan dari stakeholder yang terkait. Implikasi penelitian ini bertujuan untuk memperbaiki potensi kelemahan pendidik guna menjadikan pendidik sesuai di abad ke-21.

ABSTRACT

The development of ICT technology has an impact on the development of the game industry, which makes teachers more creative in designing their learning processes. However, teachers have not fully implemented the learning process using gamification-based media. This study aims to explore the teacher's perspective on the use of the Quizizz gamification application. This type of research is qualitative. The research subjects used consisted of 16 classroom teachers from 5 elementary schools. The data collection tool only uses structured interviews with classroom teachers. The data analysis technique uses a descriptive qualitative analysis using Miles and Huberman. The results show that using gamification, especially Quizizz, is beneficial and supports educators in learning. However, many educators admit that they have obstacles: they are unfamiliar with the gamification system, have difficulty in making gamification, have no training and socialization, and educators do not yet know the function of the advantages and disadvantages of gamification itself. These challenges and obstacles certainly require the support of the relevant stakeholders. The implication of this research is to improve the potential weaknesses of educators in order to become exemplary educators in the 21st century.

1. INTRODUCTION

The learning process, in general, requires students to listen and take notes but requires students' activities in thinking and building a communicative atmosphere (Hill et al., 2020; Mahmoud et al., 2020; Suryawati & Osman, 2018). The strategy aims to improve students' thinking skills to acquire knowledge that they construct themselves (Lapitan et al., 2021; Palaniappan et al., 2022; Shishigu et al., 2018). One of the student learning successes is determined by the teacher as an educator. Suppose you believe that knowledge must be built individual who learns. In that case, learning is very different from traditional learning, which assumes that knowledge is in the teacher's head and the teacher must transfer the way to share that knowledge with students. The use of various learning media can support student learning success (Azizah et al., 2017; Haryadi & Pujiastuti, 2020; Muswita et al., 2018). One of the exciting learning media with an interactive nature that prioritizes cooperation communication and can lead to interaction between students is games, which create motivation in learning, namely fantasy, challenges, and curiosity.

The impact of the Covid-19 pandemic requires teachers to support the implementation of the learning process through online media (Rahmatsyah & Dwiningsih, 2021; Suprayogie & Hakim, 2021). Thus, this requires teachers to take advantage of innovative, effective, and efficient learning media so that learning

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continues to the maximum. The integration between technology and learning methods encourages teachers to be able to fulfill competencies, namely teaching several skills, including life and career skills; learning and innovation skills; information media, and technology skills (Budiaman et al., 2021; Muhdi & Nurkholis, 2021; Nugraha & Widiana, 2021). Therefore, teachers must provide students with an education that encourages critical, constructive, innovative, and character thinking skills (Russo et al., 2021; Tambak et al., 2021; Toropova et al., 2021). In conclusion, this is a challenge for teachers to continue to crexcitingnteresting and active learning and still achieve learning goals.

The development of ICT technology has impacted the development of the games industry, which makes teachers more creative in designing their learning process. Gamification is a rapidly growing trend in education because it influences learning (Eugenia et al., 2013; Hatlevik et al., 2018; Orhan Gökşün & Gürsoy, 2019). Gamification can encourage motivation and increase students' participation in stimulating their desire (Lopez & Tucker, 2019; Orhan Gökşün & Gürsoy, 2019). Previous research explains that gamification can make students' learning more engaging and positive (Groening & Binnewies, 2019; Lopez & Tucker, 2019). Lack of student motivation when online learning occurs (Adukaite et al., 2017). Traditional strategies alone are not enough to be able to provide a solution; by realizing modern and active learning, educators are advised to use gamification as an effective means of increasing student engagement and motivation in online education (Sousa-Vieira et al., 2016). Gamification depicts the connection between games and non-game concepts and is applied to non-game contexts such as education (Campbell et al., 2017; Deterding et al., 2011). Gamification aims to change game elements into the real world without changing the essence (Arkn Kocadere, 2015). Gamification is relevant to the description of 21st century learning to support students and develop critical thinking skills, is more entertaining, and increases students' motivation in learning Gamification is designed to have in-game elements such as rankings, transparent scores, and badges to lead to rewards for achieving the targets achieved (Clarísó et al., 2017).

Learning by using gamification is becoming popular in educational development to enrich the student experience in the classroom (Palaniappan et al., 2022; Rose et al., 2016). Game-based learning refers to achieving specified learning outcomes through game content and play and enhancing learning by involving problem-solving spaces and challenges that give the learner a sense of accomplishment (Groening & Binnewies, 2019; Marti-Parreño et al., 2016). Quizizz is an application designed to help the game-based learning process in an online quiz. This application acts as a tool for students' self-assessment or for measuring material understanding for student improvement (Ismail & Mohammad, 2017). The Quizizz application applies an educational concept and has exciting features such as avatars, leaderboards, and attractive themes as if playing in a game and can provide a fun interactive experience (Wijayanti et al., 2021; Zuhriyah & Pratolo, 2020).

The teacher does not fully implement the learning process using gamification-based media. Teachers do not yet have an awareness of providing gamification-based learning in their assessments. This is because they are still worried about whether students can accept the gamification platform or not (Ab. Rahman et al., 2018). This research is essential to explore educators' knowledge related to gamification learning, one of which is the quizizz application that is currently trending; therefore, the hope is to correct difficulties and shortcomings in using quizizz applications. This study focuses on educators' views regarding gamification-based applications, needs, obstacles faced, and application in elementary schools. This study aims to explore the opinion of educators about the idea of gamification-based learning media, namely Quizizz. The contribution of this research is expected to be able to provide recommendations regarding the potential use of gamification applications widely in the context of education to achieve the desired learning objectives.

2. METHOD

This type of research is qualitative research to provide an overview and explanation of the teacher's perspective in using the quizizz application to support online learning during the Covid-19 pandemic. The data collection technique uses structured interviews with a population of 40 teachers with a sample of 16 teachers from 5 elementary schools in the Sragen Regency. This research uses a case study research design. The data was collected through in-person interviews with respondents. After the data is collected, the information is displayed proportionally. Then analyzed using an inductive model; This model is intended to clarify the process of reducing data to create meaning from the raw data that has been collected. These findings were obtained to interpret basic information.

Researchers used Milles to analyze data in this study (Milles et al., 2014). First, data reduction (selecting and focusing, and changing the data obtained from the bracket. In this study, only data consisted of in-person interviews. Then, the summary is made more accessible to analyze the data and proceed to the next step. Second, the display of data (displaying organized and compressed data from the information set

so that it can be concluded later, In this step, the researcher shows or displays the data according to the data that has been prepared. Obtained and presented sequentially. Finally, after completing the data reduction and displaying the data obtained, the researchers concluded the findings in the field and based on the research problem. The distribution of the sample is presented in Table 1.

Table 1. Sample distribution

Name of school	Number of samples
SD Negeri Karantengah 1	4
SD Negeri Karangtengah 3	4
SD Negeri 15 Sragen	4
SD Negeri Mojomulyo 2	2
SD Negeri sine 3	2
Sum	16 Sample

The instrument used is an open questionnaire that leads to the teacher's understanding of the advantages, disadvantages, and difficulties of using the Quizizz application and whether this application supports the assessment of students in school. Data analysis used is qualitatively transcribed analysis. Test the validity of the instrument using construct validity. The question items presented are as follows: (1) Do you know about the quizizz application and its importance in supporting the learning process?, (2) Do you have difficulty creating quizizz applications and their application in the classroom?, (3) Do you know the advantages and disadvantages of the quizizz application?, (4) What materials do you need to support learners' assessment using the Quizizz application?, (5) Has quizizz application training ever been applied in your school?. The technique used to analyze the data is descriptive qualitative analysis.

3. RESULT AND DISCUSSION

Result

Easy-to-operate software is one of the crucial factors in increasing students' learning interest. The success of the online learning process is a one-way and two-way model, one of which is determined by the use of technology providers of interaction services between teachers and learners. The means that support these interactions in online learning are provided by many digital platforms with various completeness by the purpose of the exchange to be achieved. Quizizz itself is an educational game application that is narrative and flexible; in addition to conveying material, Quizizz can also be used as an exciting and fun learning evaluation media. Data from interviews with 16 teachers in Sragen Regency showed that teachers understood the importance of using the Quizizz application in learning; they realized that gamification-based learning media could support online learning so that students do not feel saturation. Teachers argue that smartphones or gadgets to help learn to require additional applications so that the learning and assessment process can still be carried out effectively and efficiently even though it is carried out remotely. Quizizz is considered to help judge students more realistically because students cannot cheat on fellow friends. After all, the questions given to students with each other have been randomized. Problems can be made with a specific time provision that makes students do not have the opportunity to ask questions to people around or look at their notebooks. In addition, students can find out the rankings he gets from all students who work on the question and know the correct questions and answers from the questions he has done.

Another advantage of Quizizz for teachers is that there will be automatic grading. The quiz creates a question item analysis, all of which can be downloaded in the form of excel files. The report presented is quite detailed; each student will be reported the answer is entirely wrong and the percentage of quiz achievement for all students. In addition, the quiz results of each student can be emailed to the student's parents. This will undoubtedly make it easier for teachers to get feedback quickly. But in its implementation, the Quizizz application cannot be utilized optimally due to obstacles. Perceived obstacles include teachers having difficulty in implementing applications. This difficulty is because not all students have devices that can support the use of this application. Internet network difficulties and the high cost of internet quota are why this application is difficult to implement in distance learning. Teachers prefer to use WhatsApp media in giving tasks, namely by sending files, and then the results are sent in the form of photos and a collection of assignment books. The lack of training related to the use of applications such as Quizizz among educators is one of the reasons for the lack of maximum utilization of this application in online learning. Teachers tend to choose more accessible and more familiar ways to use.

Discussion

Gamification is nothing new in educational contexts, even before the application of game-based education was created (Darejeh & Salim, 2016; Dichev & Dicheva, 2017). The purpose of gamification education in the educational context is motivation and being able to engage learners, improve skills and change negative behavior in the learning and learning process (Malamed, 2012; Seaborn & Fels, 2015). But gamification is not without its pros and cons. Some literature explains that most of the negative impacts are related to the design of such gamification (Dichev & Dicheva, 2017; Toda et al., 2019). It is precisely this that the use of education-based gamification needs to be reviewed to determine the educator's perspective regarding gamification and whether it is acceptable.

The observations found that most educators already know about the benefits of using the Quizizz application in game-based digital learning or so-called gamification. The advantage of gamification is that it makes learning fun through friendly competitions, challenges, and rewards, making it an excellent means of encouraging student engagement in learning (Hamari et al., 2016; Xu et al., 2022). It helps learners develop critical thinking and multi-task skills (Ding et al., 2018; Sajinčič et al., 2022). In addition, gamification provides a source of data related to student learning, thus ensuring more effective, precise, and timely information for teachers, parents, administrators, and public policymakers (Rincon-Flores et al., 2022; Zainuddin, 2018). But only a tiny percentage of teachers use media in student learning. This is because the definition of the use of names is confusing to the educational domain. After all, most gamification does not associate the word with education (Chow et al., 2020; Hakak et al., 2019; Toda et al., 2019). Then it is also related to the results of research that show that there is no socialization and training associated with the use of quizizz or gamification then, which makes educators do not know that there is a game-based digital platform. However, educators must encourage themselves and adjust to the development of the increasingly wallowing times. It is relevant to the profession of educators who continuously require special knowledge and skills; the educator profession is also required to have competencies from various fields that will support the learning and learning process in the class. So it is essential to obtain these competencies through training organized by the relevant government or local stakeholders. Educators should be given training before starting teaching professionally (Richter et al., 2021).

Further research analysis found that most educator respondents had difficulty making gamification-based learning or Quizizz and its application in class. This is because factors influence challenges in making, namely, poorly designed. After all, gamification is not designed according to user demographics, behavioral profiles, learning activities, and gamification strategies (Klock et al., 2016; Toda et al., 2019). Most existing frameworks have no empirical evidence of their use, thus inhibiting the adaptation of educators in their creation and application (Jaeger & Adair, 2017; Pedreira et al., 2015). In addition, Quizizz or gamification provides different definitions of feedback on the same concept so that later it will confuse educators as makers and learners as the intended subject (Wongso et al., 2014). The availability of inadequate infrastructure is one of the reasons for the occasional use of this application. Infrastructure issues negatively impact student participation in doing quizzes (Orhan Göksün & Gürsoy, 2019).

Various studies on using the Quizizz application, showing the benefits obtained, illustrate that Quizizz can improve each student's competence and skills. Quizizz learning media is one of the efforts to accommodate learning media problems in Indonesia that cannot be applied conventionally with other learning based on Informatics and Computer Technology. The technology-based educational learning model can be strategy narratively, that is, perspective. Thus, generating a formulation of problem-solving efforts through the Quizizz application. To create a livelier learning atmosphere, the Quizizz application can be an effort without removing the essence of the teacher's material. Quizizz games can help drive students' learning motivation and improve learning outcomes (Deterding et al., 2011; Hughes-Gay et al., 2021; Seaborn & Fels, 2015). Student involvement is ever conclusive, behavioral, and emotional. It is also strengthened gamification system or quizizz has an impact on characteristic psychological which is effective to cause changes in behavior bai learners later (Landers, 2019). Quizizz improves learning performance through friendly competitions (Orhan Göksün & Gürsoy, 2019). This enthusiasm and excitement also lead students to greater engagement and enhance learning performance. Students have fun and enjoy participating in competitive activities. These positive feelings are considered emotional engagement. This implies exciting activities within the Quizizz app, not only in the form of scores, points, and leaderboards that meet the spirit of the competition but also funny images or memes that appear after each answer is right or wrong, making the quiz even more enjoyable. In addition, memes, avatars, themes, and music are also available on this platform to make learning more fun and interesting, and students feel enthusiastic and emotionally engaged. Those who are not interested in music can also sound the device individually according to their needs.

When connected and supported by previous research, it is stated that the use of Quizizz application learning media can improve several aspects of students. Students and teachers feel the positive benefits presented in the application. In addition, the use of Quizizz application learning media can give an active response between students in competing to trigger students to learn better (Wijayanti et al., 2021). The differences found in some previous studies are in the subject of the study. The issues of prior research are students in high grades, so their capture power is easier to use and operate the Quizizz app. While in this study, the subjects were students in low grades who still needed guidance and assistance from parents. As for the implications of this study, in addition to making the learning atmosphere fun and active, teachers are facilitated in evaluating students' understanding of the given material. Students can also train themselves by answering quizzes in various ways already available on the application. In addition, the Quizizz application can be used as a problem bank by teachers in training students' intellectual abilities to support their cognitive development. The limitation in the implementation of this study is that it only examines the educator's view of the use of the Quizizz application has not concerned with the use of applications from student perspectives. So the difficulty of using the application and how much this application affects the motivation of learning large students is not yet known. Therefore, it is recommended that research that concerns the validity of aspects of using the application by both teachers and students cannot control and guide students who have difficulty operating the Quizizz application face-to-face.

4. CONCLUSION

Overall, the use of gamification, especially Quizizz, is considered very useful and supports educators in the learning and learning process and is deemed relevant to the development of the digital revolution era in the 21st century. But the fact is that many educators who recognize many obstacles are not familiar with the gamification system; difficulties in the manufacture of gamification; there is no training and socialization, and educators do not know the function of the advantages and disadvantages of gamification itself. These challenges and obstacles certainly require the support of relevant stakeholders.

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