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The Use of the Quizizz Application as Instructional Media and Its Effect on Senior High School Students' Learning Motivation

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ABSTRACT

Background: The rapid development of educational technology has encouraged the integration of digital learning media to enhance student engagement and motivation, particularly in secondary education contexts. **Objective:** This study aims to examine the use of the Quizizz application as a learning medium and its effect on senior high school students' learning motivation at SMA Negeri Bareng. **Method:** This study employed a qualitative descriptive approach. Data were collected through classroom observations, semi-structured interviews with teachers and students, and documentation. Data analysis was conducted using data reduction, data display, and verification techniques. **Findings:** The findings reveal that Quizizz use positively influences students' learning motivation by creating an interactive, enjoyable, and competitive learning environment that promotes active participation, focus, and enthusiasm during learning activities. Some challenges related to time management and competition pressure were also identified. **Conclusion:** The study concludes that Quizizz is a feasible and effective technology-based learning medium for enhancing learning motivation among senior high school students. **Contribution:** This research contributes to the literature on gamified learning media by providing empirical evidence of Quizizz's effectiveness in motivating senior high school students. It offers practical guidance for teachers and schools in implementing interactive digital learning tools.

1. INTRODUCTION

The development of science and technology at this time demands a better quality of education, to produce educational products that are ready to face the era of globalization. Every individual involved in education is required to play a role optimally to improve the quality of education. One of the cores of quality education lies in the learning process in humans, which requires knowledge in living this life and is given the obligation to seek knowledge (Setiawan & Aden, 2020). But of course, this knowledge does not come directly but must be sought, including by reading a lot of books, practicing, and learning something from the experience that has been lived. Knowledge is very useful for human survival. With knowledge, a person can be more able to determine the direction and purpose of his life. In addition, science also elevates a person's degree. Therefore, learning at home makes students re-quired to be able to take advantage of technology that has developed to facilitate the learning process. Technology has developed to make it easier for humans to do their activities, one of which is learning activities (Satrianingrum & Prasetyo,

2020). Available technology can be used as a learning medium. Utilization of learning media can improve the quality of learning.

Process learning can be formed due to the existence of established communication between educators and students, thus determining the value of students to achieve learning goals. The success of the learning process can be seen from the achievement of student learning competencies. Student learning competencies include learning processes and outcomes (Arsyad, 2005). Learning is said to be successful and of high quality if all or at least most of the students are actively involved, both physically, mentally, and socially in the learning process, in addition to showing high learning enthusiasm, great enthusiasm for learning, and self-confidence.

Learning media is needed to support successful learning, with the availability of learning media students can think more concretely and foster enthusiasm for learning from students (Citra & Rosy, 2020). In the learning process, the presence of the media has an important meaning. Because in this activity the lack of clarity in the material presented can be helped by presenting the media as an intermediary. Media can represent what educators are less able to say through certain words or sentences. With the existence of learning media students are expected to be able to receive and absorb easily and well the messages in the material presented. Formal education which is usually carried out directly in schools face-to-face must be constrained by the coronavirus or covid-19 pandemic. The chosen way to overcome obstacles in the field of education during this pandemic is by conducting online learning (Grace, 2017). So this situation became a big challenge for an educator because under these conditions educators are required to be able to manage, and design learning media (online media) in such a way as to achieve learning goals (Erfiani et al., 2020).

The learning system at this time is information technology, which is a tool that can be used by individuals or groups to process data, including processing, obtaining, compiling, and storing data in various ways to produce quality information (Oktarina, 2020). In the 21st century, the world has entered the era of the Industrial Revolution 4.0. The era of the Industrial Revolution 4.0 is a challenge in all fields of science, especially in the field of education. The development of Science and Technology encourages every individual to always be creative and active in their potential. To develop all the potential of students both cognitively, affectively, and psychometrically, they must go through a learning process (Hanafi & Sumitro, 2020). Learners online is a solution to the current situation, where many platforms support learning which can be called E-learning. E-learning is a technological system that supports the learning process and serves as a forum for interaction between educators and students to achieve learning goals. E-learning is the right choice for distance learning. The use of e-learning as a learning medium is liked by students and can be used anytime and anywhere. E-learning can facilitate the learning process if it matches the level of student understanding of understanding material. One of the e-learning that facilitates the learning process is the quizizz application (Handoko et al., 2020).

There are various kinds of features available in the Quizizz application, which can be used as a means for educators to give assignments or homework (Utomo, 2020). In addition to doing assignments, students can feel that learning is not too heavy in thinking about answers, because the Quizizz application has an attractive appearance and lots of fun features (Wijayanti, et al., 2021). Games cannot be separated from creative, innovative, adventurous, and fun elements (Utomo, 2021) which can foster positive motivation for each student's desire to teach (Grace, 2017). So, it can realize the ideals and goals of education concretely. Various kinds of studies related to the use of the Quizizz application, showing the benefits obtained, illustrate that Quizizz can increase the competence of each student and student expertise. The utilization of Quizizz learning media, is one of the efforts to accommodate the problems of learning media in Indonesia that cannot be applied conventionally with other learning based on Information Technology and Computers. In fact, technology-based educational learning models can be strategized in a narrative that is perspective. Thus, producing a formulation of problem-solving efforts through the use of the Quizizz application, especially for students.

There are various other features available in the Quizizz application, which can be utilized as a means for teachers to give assignments or homework. Besides doing assignments, students can feel less heavy learning in thinking about answers, because the Quizizz application has a fresh look and is rich in fun things. Quizizzais a game-based educational application, that brings multiplayer activities to the classroom and makes classroom exercises interactive and fun (Annisa, 2021). The Quizizz application is also an application that supports learning, from making materials, exercises, and quizzes with attrac-tive visuals. In this quizizz application, students can also see the ranking achieved so that it can motivate students to achieve satisfactory learning results (Ansory et al., 2018). Quizizz has game characteristics such as avatars, themes, memes, and entertaining music in the learning process. Quizizz also allows students to compete against each other and motivates them to study. By using Quizizz, students can do exercises in class on their electronic devices (Mulatsih, 2020).

The effect of application-based learning Quizizz can increase student learning motivation, this is because learning activities delivered using the Quizizz media game can increase student motivation and learning outcomes (Tiana et al., 2021). Quizizz is a game application that can be used in learning activities (Mulyati & Evendi, 2020). For students to be more enthusiastic in following the lessons, it takes a fun learning medium. It is easier for students to gain learning experience or to explore the subject matter. It is hoped that the use of the Quizizz application will inspire students' enthusiasm for teach (Nurmalia et al., 2021). Through this application, it is hoped that it will make it easier for students to understand each problem presented and solve it in a fun way.

The acceleration of globalization, also gave rise to other currents in technological developments, and eventually Quizizz application was born as a media learning media, supporting the continuity of teaching and learning activities in the midst of the pandemic. The Quizizz application is online, which means that it can be used easily easily if supported with adequate internet access. This Quizizz game media can increase learning motivation and improve student learning outcomes. In addition, the Quizizz application can be used by educators to review their performance through student learning outcomes (Wijayanti et al., 2021). Utilization of Quizizz game media is appropriate to be used as a choice of learning media that can foster strong interest and motivation to learn. Quizizz is a game-based learning medium with interactive and fun exercises (Purba, 2019). The selection of this media is very interesting for students because it provides an opportunity for them to play while learning by utilizing every facility provided in the Quizizz application.

To find out more about the data related to the use of the Quizizz application as a learning media at schools, the researchers conducted observations at SMA Negeri Bareng, the findings showed that the use of technology had been implemented at SMA Negeri Bareng, especially quiz-based appli-cations during the pandemic and in the new normal to attract students' interest in learning. What attracts attention is the existence of the latest and fun learning media it makes students feel curious about the evaluation tools that have just been used by the teacher. So far, teachers have not been optimal in using media and technology during the thematic learning process, so students easily get bored quickly in teaching and learning activities taking place, student motivation is lacking because learning methods are still conventional and monotonous. The purpose of this study is to find out whether the advantages of the Quizizz application as a medium can increase the learning motivation of fifth-grade students in thematic learning. To find out the use of the Quizizz application as a medium capable of increasing the learning motivation of fifth-grade students in thematic learning.

This study aims to find out how much influence the use of learning media based on the Quizizz application has and its in-fluence on students' learning motivation at school. The implications and contributions of the results of this research can later be used as enrichment material for schools and teachers both theoretically and practically regarding the role of using the Quizizz application as a learning medium for students in schools to increase their learning motivation.

2. METHOD

2.1 Study Design

This research uses a qualitative approach with a descriptive approach. The reasons for using this research because researchers want to know and provide a detailed, clear, and a concrete picture of the use of the Quizizz application as a medium in thematic learning to increase student learning motivation at SMA Negeri Bareng, based on the results of observations, interviews, and documentation. Qualitative research is research using the scientific method to reveal a phenomenon by describing data and facts through words as a whole to the research subject. According to Muri, the qualitative approach is an inquiry strategy, which emphasizes the search for meaning, understanding, concepts, characteristics, symptoms, symbols, or descriptions of a phenomenon; multi-method focus, natural and holistic, prioritizing quality, using several methods, and presented narratively.

2.2 Participants

This research was conducted at SMA Negeri Bareng in 2021/2022 academic year, in this study the researcher used two data sources to find and collect data sources in this study, and the resulting data to be processed, namely: Primary data sources and secondary data sources. Primary data sources from this study are a) school principals, b) class teachers who have more real information about the process of using the quizizz application as a thematic learning medium to increase student learning motivation. c) Students will obtain data about the use of the quizizz application as a medium in thematic learning to increase student learning motivation in class v. Secondary data sources from this study are: a) thematic learning, b) previous researchers c) journals.

2.3 Data Collection

Data collection techniques are the process of collecting data needed by researchers, in a study we must obtain valid or valid data. Therefore to obtain valid results in a study, we need to use a data collection technique, therefore researchers will use several data collection techniques including observation, interviews, and documentation. Data analysis's a process or effort to process data into new information so that the characteristics of the data become easier to understand and useful for solving a problem, especially those related to research.

2.4 Data Analysis

The data analysis used in this study is a qualitative data analysis technique in a qualitative descriptive method. Data analysis is carried out through three steps, namely data reduction, data display, and verification.

3. RESULT AND DISCUSSION

3.2 Result

From the results of observations and interviews with 2 thematic teacher informants for class V and several class V students conducted by researchers, it can be concluded that: the results of observations (observations) and interviews conducted researchers stated that the Quizizz application as a learning medium was able to increase student learning motivation and had a positive effect. Learning media has a very important role in the teaching and learning process. With the existence of the media, the teaching and learning process will be increasingly felt the benefits. The selection of learning media adapted to the needs in the process of teaching and learning activities, as well as students' ability to learn greatly determines success in the teaching and learning process.

The following is an example of the form of the quizizz application used by the teacher as a learning medium to increase student learning motivation at SMA Negeri Bareng.
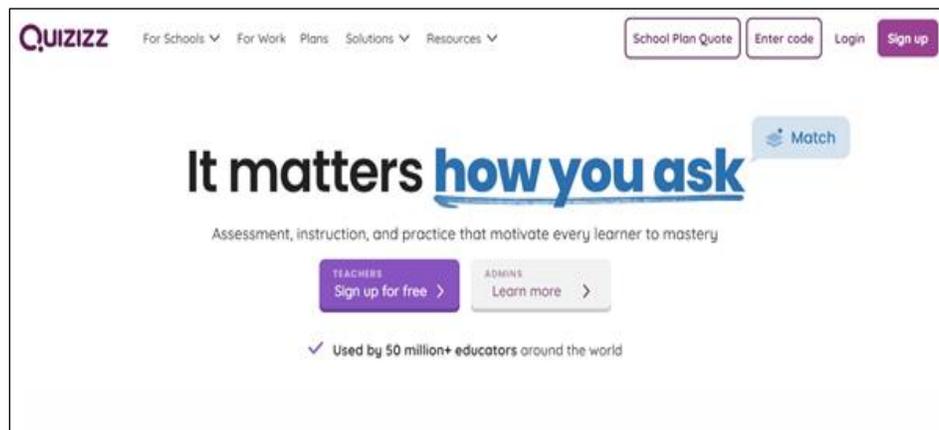

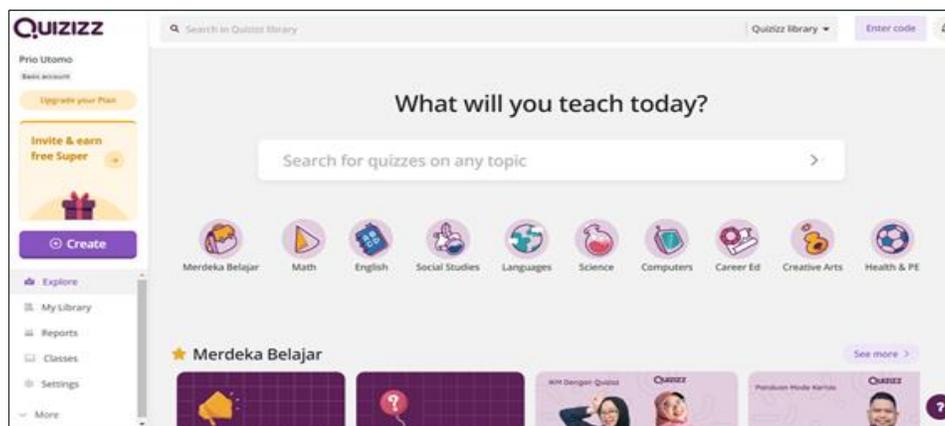Figure 1. Main Display of Quizizz Application-based Learning Media

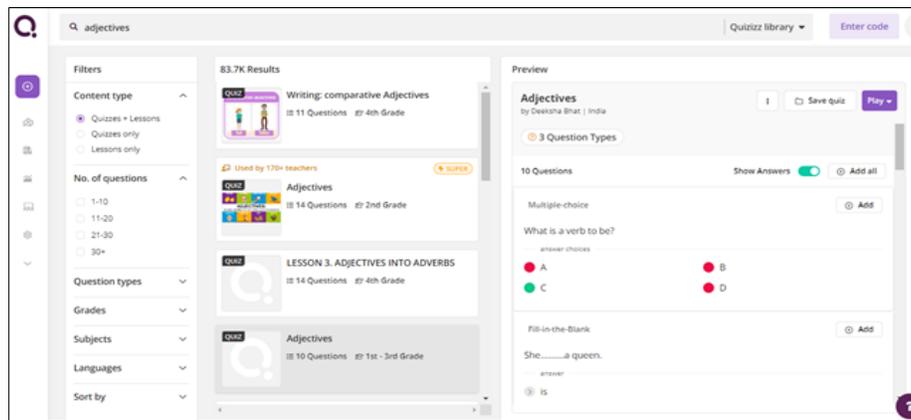Figure 2. Quizizz Application Learning Type Menu

Figure 3. Example of Learning through Quizizz Application

After knowing the data presented in the facts above, the further action by the researcher is to discuss the data collected using a detailed qualitative descriptive method. The approach used is a descriptive approach. The descriptive approach used in the activities in this study will produce data in the form of written or spoken words from people and observed behavior. In collecting data using interview techniques, using several written questions that have been prepared.

Based on the results of interviews with school teachers at SMA Negeri Bareng, the research findings show that using the quizizz application as a learning medium can stimulate students' motivation to increase student concentration. There are several aspects as guidelines for researchers to assess whether students' learning motivation increases by utilizing the quizizz application as a learning medium at SMA Negeri Bareng. Learning motivation is something that must be owned by SMA Negeri Bareng students, starting from showing the characteristics of taking learning seriously without any coercion and going through the learning process well based on their desires. If a student already has motivation towards learning, the learning process will run well.

3.2 Discussion

The findings show that with Quizizz it is easier for the teacher to convey the material, but the use of Quizizz has a time limit set by the teacher. With this time limit it can make students compete with each other, the bad impact is that they are too busy competing and ultimately make students not concentrate because they are driven by time. The use of Quizizz as a learning medium in class can make SMA Negeri Bareng students begin to interact with learning, not just interact with teachers. Students begin to feel that learning is fun after starting to use technology-based learning media. Students feel happy with the display on the cellphone screen and students think that using Quizizz is easy to use. In Quizizz students can read the material, do assignments, and can discuss with friends. When the process of working on the test takes place students will start competing with each other to work on each question within a predetermined time.

The learning pattern created and empowered through the Quizizz application is an interactive multimedia pattern. The Quizizz application has advantages that can be easily utilized in addition to learning media, as well as learning evaluation materials, for example, there are data and statistical calculations of student performance, the results of which can illustrate the extent to which students understand the material, later becoming a measuring material for overall learning evaluation. Thus, giving a new color to the teacher's evaluation process and a fun learning pattern for students.

According to the teacher at SMA Negeri Bareng, said that the advantage of the Quizizz application is the effective and efficient use of the Quizizz application following the learning objectives which makes the learning process more interesting, the student learning process becomes more interactive and conducive, the amount of study time in class can be reduced, learning motivation participants can be increased, and the learning process can occur anywhere and anytime so that students can improve the quality of learning properly. Thus, the use of the Quizizz application as a medium of learning to increase student learning motivation can be applied and beneficial to students at SMA Negeri Bareng.

Another finding also revealed that I feel excited in doing things because I am busy competing to finish the work quickly. With the timer, students will not ramble in completing it, and can foster a sense of competition between students. Students began to know that the material presented was simple, although previously the teacher had also

provided material manually. In addition, students also begin to know what the difference is between the learning process using the internet and using manual learning. The teacher also began to know what ways can overcome a feeling of boredom that students have during the learning process.

The use of the Quizizz application as a learning medium is fun and makes students start to care about learning material and start participating in the learning process with an interest in Quizizz learning media which can foster student learning motivation (Salsabila et al., 2020). With the development of increasingly sophisticated technology, the wider the way for someone to look for something that can make things easier. As with a teacher, the development of technology, of course, can make the teacher more efficient in choosing the learning media to be used. One of the things that can be utilized from the development of technology is the use of the internet. From the existence of the internet came a learning application called Quizizz which can be used by teachers as learning media. Technology-based learning media is one of the media that can be used today, and in the world of technology education, it also plays an important role (Nashiroh, 2020). The Quizizz application provides many benefits by making it easy for students to understand subject matter by utilizing convenience in reading subject matter, reading power points provided by educators, and viewing videos related to learning so that students can study anywhere and anytime, which is not just studying on the internet (Sari & Yarza, 2021).

Quizizz is an educational game application that is narrative and flexible, besides being able to be used as a means of delivering material, Quizizz can also be used, as an interesting and fun learning evaluation media. Teachers can use, then develop evaluation media through the Quizizz application, so as to achieve educational goals. The Quizizz application can not only be used with cell phones but the application can be opened with a computer or laptop that is connected to an internet network. The display design of the Quizizz application is following learning needs, educators can also send assignments and materials remotely (Mulatsih, 2020). The selection of themes in the Quizizz application is also diverse and varied. Quizizz application media provides many fun features for students because it makes distance teaching easier (Yana et al., 2019). So it is very effective for the teacher to use it to find out the increase in students' cognitive development. During the pandemic, the use of online learning media was the only solution that could be applied during teaching and learning activities. The presence of various online learning media makes it very easy for teachers to convey the material to be taught to their students (Hidayati & Aslam, 2021).

Utilization of the Quizizz application as a learning medium to increase student learning motivation can be seen from the learning behavior of students. Students are motivated to carry out an activity for themselves because they want to get pleasure from learning or feel their needs are met. Some students are motivated to carry out learning to gain rewards or avoid punishment from outside themselves, such as grades, tokens of appreciation, or teacher praise (Arianti, 2019). In addition, the completeness of the Quizizz application is very supportive in the success of the learning process at various levels and subjects, including high school students. The development and utilization of a learning media is very necessary to complete things that are still incomplete when creating and utilizing applications, because it is related to the needs of students or learners. The development and innovation of learning media helps accommodate learning, so that it is then able to form characteristics and increase competence and motivation in learning. Broadly speaking, the development of learning media needs to be done, in order to immediately realize education that is rich in progress and progress. Various kinds of studies related to the use of the Quizizz application, showing the benefits obtained, illustrate that Quizizz can increase the competence of each student and student expertise. The utilization of Quizizz learning media, is one of the efforts to accommodate the problems of learning media in Indonesia that cannot be applied conventionally with other learning based on Information Technology and Computers.

The teacher's role in increasing student learning motivation is one of the integral activities that must exist in learning activities. In addition to providing and transferring knowledge, the teacher is also tasked with increasing children's motivation in learning (Purwaningsih, 2016). It is undeniable that the enthusiasm for learning of a student is different from others that is why it is important for teachers to always motivate students so that students always have a passion for learning and can become students who excel and can develop themselves optimally (Tasaik & Tuasikal, 2018). The learning process will be successful if students have the motivation in learning. Therefore teachers need to foster optimal student learning motivation. Teachers are required to be creative to generate student learning motivation.

The role of motivation creates achievement motivation, with student achievement motivation being able to direct the ability to achieve the need for achievement (Utomo et al., 2018; Prayogi & Utomo, 2021). Strictly speaking, learning motivation plays a very important role in student learning in achieving learning achievement. The high and low learning achievement of a student is always associated with the high and low learning motivation of a student. The learning process is an activity that involves an individual (physical and spiritual), learning activities are never

carried out without strong encouragement or motivation from within the individual or from outside the individual participating in the learning activity (Palittin et al., 2019).

As a motivator, the teacher has many tasks, both those bound by the service and those outside the service, in the form of dedication. If we group there are three types of teacher assignments, namely tasks in the professional field, humanitarian tasks, and tasks in the social field (Syachtiyani & Trisnawati, 2021). The teacher is a profession/position or job that requires special expertise as a teacher. This type of work cannot be done by just anyone outside the education sector even though in reality it is still done by people outside education. That is why this type of profession is the most susceptible to contamination (Saputra et al., 2018).

Tasks include educating teachers as a profession, teaching, and training. Educating means continuing and developing the values of life. Invite means to continue and develop science and technology (Izhar, 2016). While training means developing skills in students. The task of the teacher at school must be able to make himself a second parent. As parent, being a parent has an important role in student development (Utomo & Alawiyah, 2022; Utomo et al., 2022; Pahlevi & Utomo, 2022). The teacher must be able to attract sympathy so that he becomes the idol of his students. Whatever lesson is given, it should be able to motivate students in learning (Zein, 2016). If a teacher in appearance is no longer attractive, then the first failure is that he will not be able to instill the seeds of his teaching in students. Students will be reluctant to face an unattractive teacher. Lessons cannot be absorbed so that every level of society can understand when dealing with teachers. Society places teachers in a more respectable place in their environment (Utomo et al., 2022).

Based on the discussion above, it can be concluded that the teacher's role in learning motivation is very important, if the teacher does not participate in student learning motivation, students are less creative and are not provoked to be active. Therefore, the role of the teacher is very influential on student learning motivation and its main goal is to achieve achievement and improve the quality of learning in the learning process. Therefore, one of the strategies that can be implemented to increase student motivation is through learning based on the Quizizz application. The existence of this Quizizz application is expected to improve student learning outcomes and increase student enthusiasm in undergoing the learning process. In this quizizz application has many functions that are not only a classroom, but can also be a means of distributing assignments, submitting assignments and even assessing tasks that have been collected and students can see the results of their answers directly on the screen of the cellphone or computer used. By utilizing the existing quizizz application, of course, this can take advantage of the use value of the cellphones owned by students so that they can find out the function of using cellphones as a learning media tool and educators can also change the learning process from not using the media to finally change to using learning media that can increase student interest in learning.

4. IMPLICATIONS AND CONTRIBUTIONS

4.1 Reseach Implication

The findings of this study imply that the integration of the Quizizz application as a learning medium can serve as an effective strategy to enhance students' learning motivation within the school environment. For schools, these results highlight the importance of institutional support in strengthening teacher professional competence through continuous training related to innovative instructional media. For teachers, the study underscores the need to adopt creative and technology-based learning approaches that foster an engaging classroom atmosphere and stimulate student participation. For students, the results suggest that active involvement in interactive digital learning environments can promote stronger enthusiasm and sustained motivation toward learning. Collectively, these implications reinforce the value of structured technological integration as part of broader efforts to improve instructional quality and learning engagement.

4.2 Reseach Contribution

This study contributes both theoretical and practical value to the field of educational technology and learning motivation. Theoretically, it expands existing knowledge regarding the role of gamified digital learning media in supporting motivational development among students. Practically, the findings provide actionable insights for schools and educators seeking to implement interactive learning tools to improve classroom dynamics and student engagement. Furthermore, the study offers a reference framework for future researchers by identifying methodological and contextual considerations that can be explored or refined in subsequent investigations. Through these contributions, the research supports the continued development of evidence-based instructional practices that align with evolving educational needs.

5. LIMITATION AND FUTURE RESEARCH DIRECTIONS

5.1 Reseach Limitations

This study has several limitations that should be acknowledged when interpreting the findings. First, the theoretical foundation supporting the literature review was relatively limited, which may have restricted the depth of conceptual analysis related to the use of the Quizizz application as a learning medium. Second, technical challenges encountered during field implementation affected the efficiency of data collection, particularly in building intensive interactions with participants, which required more time than initially planned. Third, the research focus was not always maintained optimally due to the breadth of data sources involved, potentially reducing the precision with which the research objectives were addressed. These constraints suggest that the results should be understood within the context of these methodological and practical boundaries.

5.2 Recommendations for Future Research Directions

Future research is encouraged to strengthen theoretical exploration by incorporating broader and more diverse scholarly sources to deepen conceptual understanding of digital learning media and student motivation. Researchers should also consider improving methodological planning to minimize technical barriers, including allocating sufficient time for participant engagement and data collection. In addition, future studies may benefit from adopting a more focused research scope or employing mixed or alternative methodological approaches to enhance analytical rigor and clarity of findings. Expanding the research context, sample size, or comparative settings may further enrich the evidence base and contribute to the continued development of technology-supported learning practices.

6. CONCLUSSION

Based on the results of the analysis and discussion of the research results that have been carried out by researchers regarding the use of the Quizizz application as a medium in thematic learning to increase student learning motivation at SMA Negeri Bareng, it can be concluded that the use of the Quizizz application is very feasible to use to increase learning motivation, to create an atmosphere fun learning but does not eliminate or reduce students' understanding of the material and take advantage of technological developments. It can be concluded that several things include the following: Utilization of the Quizizz application as a learning medium has a positive effect on increasing student learning motivation at SMA Negeri Bareng. can arouse desire, interest, and motivation and stimulate teaching and learning activities, besides that Quizzz can also help students to make it easier to understand the subject matter. The advantages of the Quizizz application as a learning medium can be said to be superior in the Quizizz application. The learning process becomes more interesting, student learning processes become more interactive and conducive, save time, student learning motivation can also be increased, and learning processes can occur anywhere and anytime.

Researchers revealed that the software is indeed very easy to operate so that it can make learning run well through the use of the quizizz application as a learning medium. If the use of the application runs easily and learning goes well, the benefits for its users will also be seen. Therefore, it can be concluded that the ease aspect in the quizizz application as a learning media is successful in increasing student interest in learning. With the development of increasingly sophisticated technology, the wider the way a person looks for something that can facilitate all affairs. As with a teacher, with the development of technology, of course, this can make teachers more efficient in choosing the learning media to be used. One of the things that can be utilized from the development of technology is the use of the internet. From the internet comes a learning application called quizizz which can be used by teachers as a learning media.

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Author Contribution Statement

All authors discussed the results, contributed to the final manuscript, and approved the final version for publication. Tria Ratna Dewi: Conceptualization and Design, Methodology, Writing - Original Draft; Marlena: Writing - Review & Editing, Performed data collection and Analysis, Interpretation of the results

Declaration of Generative AI (GenAI) Usage in Scientific Writing

The authors declare that Generative Artificial Intelligence (GenAI) tools were employed in the drafting and revision of this manuscript to check spelling and grammar, identify typos, grammatical errors, suggest paraphrases, reduce passive voice, and eliminate repeated words, sentences, and unnecessary adverbs. The suggestions provided by GenAI were critically evaluated and modified to ensure that the final draft remains representative of the authors' own work. All instances of Generative AI usage in this article were conducted by the authors in accordance with the IJITL GenAI Tool Usage Policy, with the authors assuming full responsibility for the originality, accuracy, and integrity of the work

Conflict of Interest Statement

The authors declared that they have no competing interests with respect to the research, authorship, and/or publication that might have influenced the performance or presentation of the work described in this article.

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