

## Application of Ice Breaking and Interactive Quizziz to Improve Student Learning Quality: Community Service Program at IPIEMS Surabaya Junior High School

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### ABSTRACT

This article discusses the application of ice-breaking techniques and the interactive learning platform Quizziz to improve the quality of student learning at IPIEMS Junior High School Surabaya, Indonesia. In the digital era, innovative teaching methods are crucial, as traditional methods often do not meet the needs of diverse students. Ice-breaking activities are proven to increase student motivation and engagement, while Quizziz offers an interactive and fun learning experience, which encourages a deeper understanding of the material. This study aims to evaluate the impact of these methods on motivation, comprehension, and overall learning quality, with a blended approach involving surveys and interviews. The results showed a significant increase in student motivation and engagement after the implementation of these techniques. In addition, the ice-breaking activity created a more relaxed classroom atmosphere, encouraging active participation and reducing boredom, while Quizziz provided immediate feedback that supported critical thinking and a deeper understanding of the material taught. Overall, both methods proved effective in making the learning process more dynamic and interactive, ultimately contributing to improving the quality of education in the digital age.

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### INTRODUCTION

The quality of student learning is one aspect that is the main focus in the world of education, especially in facing the various challenges posed by the rapid development of the current digital era. Learning with conventional methods is often considered less able to accommodate the various learning needs of students that vary greatly, both in terms of increasing learning motivation and understanding of the material being taught. Given this, it is very important to explore and explore learning methods and strategies that are more innovative and can adapt to the needs of the times, such as the application of ice breaking techniques and the use of interactive learning applications such as Quizziz. These two methods have been shown to make a very positive contribution, not only in increasing students' motivation to be more active in learning, but also in improving the quality of

their understanding of the subject matter, thus allowing for a more enjoyable and effective learning experience.

Ice breaking techniques have been widely used as an approach to create a fun learning atmosphere while building student motivation. Research by Taufiqulloh Dahlan et al. (2023) showed that ice breaking significantly increased students' learning motivation at the primary school level through structured and fun activities (Dahlan et al., 2023). In addition, Khalimatus Sa'diyah and Firdaus Suhaimy (2023) also underlined the role of ice breaking in improving student concentration in a vocational school environment (Sa'diyah & Suhaimy, 2023). This confirms that this strategy is effective not only in stimulating motivation but also in helping students focus more during the learning process.

Conversely, the utilization of technology in learning is becoming increasingly crucial to meet the needs of students from the generation that grew up in the digital era. Quizizz app, which is a technology-based learning platform, offers a learning experience that is not only interactive but also highly engaging, which can significantly increase student engagement. According to research conducted by Chyntia Pasalbessy et al (2022), the utilization of Quizizz proved to be effective in increasing students' learning motivation by implementing a learning approach that emphasizes activity and independence. This approach provides opportunities for students to undergo the learning process more independently, allowing them to set their own learning pace and be actively involved in every stage of learning. Thus, students are not only passive recipients of information, but are more active in processing and understanding the material taught. This process ultimately contributes to improving their understanding of the material learned, as they have the opportunity to reflect and apply their knowledge more deeply (Pasalbessy et al., 2022). In addition, student integrity can also be built through transparent online assessment. With features that support gamification, Quizizz creates a competitive and fun learning environment, which is very relevant to improving students' understanding of the subject matter.

Combining ice breaking techniques with interactive applications such as Quizizz has enormous potential in improving the overall quality of student learning. This approach not only focuses on increasing student motivation, but also has a positive impact on mastery of subject matter and active student engagement in the teaching and learning process. For example, various previous studies have shown that ice breaking activities are effective in creating a classroom atmosphere conducive to learning, by reducing tension and increasing a sense of comfort among students, which in turn encourages them to participate more actively. Meanwhile, the use of Quizizz plays an important role in supporting a deeper understanding of the material, as this platform provides practice questions that are not only fun, but also technology-based, which makes it easier for students to learn in a more interesting and interactive way. By integrating these two methods, the learning process can become more dynamic and thorough, covering aspects of motivation, material mastery, and student engagement in a more effective and fun way.

This study has the main objective to explore and analyze the extent to which the application of ice breaking techniques and the use of interactive Quizizz can contribute to improving the quality of the student learning process at IPIEMS Surabaya Junior High School. In more detail, this study aims to: (1) identify the extent to which ice breaking activities can influence the increase in student motivation and enthusiasm during learning, (2) evaluate how the use of the Quizizz platform can affect student understanding of the material being taught, and (3) measure the extent to which the combination of ice breaking and Quizizz methods contributes to increased student engagement and overall learning quality, with the aim of creating a more dynamic and effective learning environment.

Within the framework of the Community Service Program, this research aims to provide a positive impact that is directly felt by the students as well as the UINSA PPL students involved in SMP IPIEMS Surabaya. In addition to providing direct benefits to both groups, the approach used in this research is also expected to be an example or model of application for other educational institutions that wish to improve the quality of their learning by utilizing innovations in teaching methods that are more creative and interactive. Thus, the results of this study have the potential to be adapted and applied in various schools or other educational institutions that want to improve the teaching and learning process through a more innovative approach.

## METHOD

The methodology used in this investigation includes a qualitative paradigm. The main objective is to gain a deep and thorough understanding of the problem under study (Alfani et al., 2024). This research also adopts a descriptive approach using mixed methods, which combines qualitative and quantitative data to provide a deeper and more comprehensive insight into the phenomenon under study. The research location was IPIEMS Surabaya Junior High School, focusing on students in grades 7E and 9E as the main research subjects. These students were chosen as a representation of the group involved in the application of ice breaking techniques and the use of interactive Quizizz in their learning process. In addition, UINSA PPL students who acted as collaborators in this study also played an important role in the implementation of the learning techniques used in this study. To measure the level of students' motivation towards learning after the implementation of the two techniques, the researcher also distributed questionnaires to the students as a data collection tool, which aimed to gain a more objective understanding of the changes in students' learning motivation influenced by the applied methods.

In terms of qualitative data, semi-structured interviews were conducted with UINSA PPL students and some students to dig deeper into their experiences during the learning process using the applied methods. This interview aims to obtain direct views from participants regarding their perceptions of ice breaking techniques and the use of Quizizz as an interactive learning tool. In addition to interviews, direct observations were also made in the classroom to observe the dynamics and reactions of students to the methods applied during the learning process. This observation is important to get a clearer picture of the extent to which students are engaged in learning and how they respond to each activity carried out, as well as to understand the relationship between the classroom atmosphere and the effectiveness of the learning methods used.

The research was designed in three main stages. The first stage was planning and training the UINSA PPL students on how to implement ice breaking techniques and the use of Quizizz in their learning. In the second stage, the learned methods were applied over several class meetings to allow time for the students to experience first-hand the benefits of both techniques. The third stage is outcome evaluation, which is conducted by analyzing qualitative data obtained from interviews and observations, and processing quantitative data obtained from questionnaires. The qualitative data was analyzed thematically to identify the main patterns and insights that emerged from the students' experiences during the implementation of these learning methods. The combination of qualitative and quantitative data aims to answer three research problems, namely how ice breaking strategies can motivate students, what impact the use of interactive Quizizz has on student understanding, and how the combination of these two methods contributes to improving the overall quality of student learning.

## RESULTS

### Brief Profile of IPIEMS Surabaya Junior High School

IPIEMS Surabaya Junior High School, located at Jl Raya Menur 125 Surabaya, is one of the leading private schools in Surabaya City that has successfully achieved A accreditation, an achievement that demonstrates a high commitment to quality education and dedication in providing an optimal learning experience for its students. With its A accreditation, the school ensures that every aspect of its learning is held to a high standard, reflecting its success in providing quality facilities and teaching methods. The school stands on an area of 2,100 square meters, which is equipped with various modern facilities that support an effective and efficient learning process. These facilities include comfortable classrooms equipped with the latest technology, well-equipped laboratories to explore various sciences, and spacious and adequate sports areas to support students' physical and skill development. All of these facilities are carefully designed to create an enjoyable learning environment, support academic development, and enhance student engagement in the various learning activities offered (SMP IPIEMS Surabaya, 2024).

As part of the effort to provide optimal learning opportunities for every student, IPIEMS Surabaya also implements a double shift learning system that runs for six days a week, an approach

designed to maximize students' learning time and ensure they get sufficient attention from educators. This system demonstrates the school's strong commitment in providing an in-depth and balanced education for each student, both in academic aspects and character development. As an educational institution managed by IPIEMS Foundation, the school also has a valid operational license, recorded in Decree No. 422/236622/436.6.4/2011, issued on December 11, 2008. This ensures that IPIEMS Surabaya Junior High School operates in accordance with government regulations and has a strong legal foundation to carry out its educational mission, making it a trusted and reliable educational institution in providing high quality educational experience to the young generation in Surabaya City. (SMP IPIEMS Surabaya, 2024).

### **Ice Breaking Strategy to Increase Student Motivation**

Ice breaking is an activity carried out at the beginning of a learning session to create a more relaxed and fun atmosphere. In the context of education, ice breaking has several important roles, including creating a pleasant learning atmosphere, reducing students' boredom, and increasing their concentration (Sukmajadi & Simanjuntak, 2021). By engaging students in fun activities, ice breaking can increase their involvement in the learning process, encourage active participation, and build positive social relationships among students. These good relationships can improve collaboration in group learning. In addition, light and funny ice breaking activities are able to relieve stress and refresh students' minds, especially after a long learning session (Rahmawati et al., 2023). This helps create a comfortable learning environment and makes students more focused and ready to receive new material. Furthermore, ice breaking can increase energy through physical activities or short games, while stimulating the brain with stimulating mental activities (Firdaus & Hindun, 2023). By utilizing ice breaking effectively, educators can create a dynamic learning atmosphere, reduce student boredom, and improve their concentration, which ultimately has a positive impact on learning outcomes.

Ice breaking is an effective method to create a fun learning atmosphere while reducing student boredom. Some common types of ice breaking activities include light games, quizzes, cheerful songs, and humor. Games such as "Guess the Word," "Simon Says," or "Bingo" are designed to break the ice and encourage student interaction. Fun light-hearted quizzes, such as trivia on relevant topics, can also increase students' interest in learning. In addition, the use of songs and clapping together creates positive energy in the classroom, helping students feel more relaxed and engaged. Humor, whether in the form of funny stories or lighthearted jokes, also creates an intimate atmosphere that makes learning more interesting. IPIEMS Surabaya Junior High School 7E students' response to this activity showed a significant increase in motivation, with the average motivation increasing from 50.50 to 88.902 after the implementation of ice breaking. Students were also more engaged in discussions and felt comfortable interacting with classmates and UINSA PPL students. Ice breaking activities effectively reduce stress and boredom that students often experience during learning, creating a relaxed classroom atmosphere so that their concentration on the subject matter increases (Tanjung & Namora, 2022). Thus, the application of ice breaking not only makes learning more fun but also contributes positively to students' motivation and learning quality.

### **Implementation of Interactive Quizziz in Learning**

Quizziz is an interactive learning platform designed to enhance students' learning experience in an engaging and effective way. The platform allows UINSA PPL students to design and create quizzes that can be accessed by students online, with the main goal of enriching and maximizing the ongoing learning process. The use of Quizziz involves a series of important steps that start from the selection of learning materials that are in accordance with the curriculum being implemented in the classroom, then proceed with the preparation and implementation of quizzes, and end with the evaluation of the results to assess the extent to which the quiz is successful in deepening students' understanding of the material being taught (Halawa et al., 2024). In the initial stage, UINSA PPL students select learning topics that are relevant and in accordance with the curriculum applied in each class, such as cultural arts for class 9E and religious education for class 7E, thus ensuring that the selected topics are truly related to the material being studied by students and support the achievement of expected competencies. After the topics are determined, students then design quizzes with various

types of questions that can be adjusted to the level of understanding and ability of students, such as multiple choice questions, true/false, to open-ended questions designed to encourage students to think more critically and reflectively on the material being taught. In addition, to enrich the learning experience and make the quiz more interesting and interactive, students also incorporated additional resources, such as images and videos, into the quiz. The addition of these visual elements not only provides a richer and more interesting dimension, but also helps students to better understand and remember the subject matter in a more enjoyable way, thus making the teaching and learning process more effective, engaging, and fun for all parties involved.



**Figure 1: Implementation of Quizziz Learning**

In the implementation stage, students access the quiz using their devices, be it smartphones, tablets, or computers, by entering a special code that has been provided by UINSA PPL students. This code allows students to join the quiz directly and follow each step easily. Each question in the quiz comes with a specific time limit, which not only adds to the challenge for students, but also creates a competitive atmosphere. This time limit encourages students to think fast and make the right decisions, while increasing their engagement during the learning process. One of the excellent features of Quizziz is the provision of immediate feedback after students have answered each question. This feature allows students to know immediately whether their answer is correct or incorrect, while also providing an opportunity to improve their understanding of the material that has been learned. With direct and instant feedback, students can learn from their mistakes and clarify concepts that may not have been well understood.

In its implementation in 9E cultural arts and 7E religious education classes, Quizziz proved to be very effective in increasing student interest and engagement during the learning process. Not only does it provide a fun and engaging way to test students' understanding, but it also creates a more interactive learning experience. Students become more motivated to actively participate in learning due to the competitive and fun nature of quizzes, which allows them to feel the challenge as well as the fun of learning. The successful use of Quizziz also lies in its ability to encourage students to be more engaged in the learning process through questions designed to stimulate critical and reflective thinking. With a more dynamic approach, Quizziz provides a learning experience that is not only fun but also immersive, allowing students to internalize the subject matter in a more efficient manner.

After the quiz is completed, UINSA PPL students have the opportunity to evaluate the effectiveness of Quizziz as a learning medium through analyzing the quiz results that have been taken by students. The data obtained from the quiz results, such as the time spent by students to answer each question and their success rate in answering, can provide a clear picture of the students' level of understanding of the material that has been taught. With this information, students can adjust their teaching methods to focus more on topics that are still difficult for students to understand. In addition, student responses to the use of Quizziz were generally very positive, with many students feeling more motivated to learn due to the interactive and fun quiz format. Overall, Quizziz serves not only as a tool to evaluate students' understanding, but also as an effective way to increase their interest and engagement in learning. The platform changes the way students learn to be more dynamic, giving

them the opportunity to learn in a more fun way and eliminating the boredom that often comes with traditional learning methods. As such, Quizziz contributes significantly to creating a more effective learning environment that suits the needs of education in an increasingly advanced digital era.

### **Evaluation of the Impact of Ice Breaking and Quizziz on Student Learning Quality**

Ice breaking activities and the use of Quizziz as an interactive learning media have a significant impact on student engagement, learning outcomes, and the development of critical thinking skills at IPIEMS Surabaya Junior High School. Ice breaking activities proved effective in increasing student engagement by creating a more relaxed and familiar atmosphere, which made students feel more comfortable to actively participate in class discussions and activities. This more interactive atmosphere also facilitates the establishment of positive social interactions between students. In addition, ice breaking activities help reduce the boredom that students often experience during learning, so they are more focused and concentrate on the material being taught (Kusumawardani et al., 2024). This contributes to improving students' understanding of the lesson. This activity also plays a role in developing students' critical thinking skills, especially when it involves open-ended questions or group discussions that invite students to analyze situations, share opinions, and consider various points of view.

The use of Quizziz also has a similar positive impact in increasing students' level of engagement in learning. With its interactive and competitive quiz format, Quizziz successfully motivates students to participate more actively, as they can see the quiz results directly and compete with their friends in a fun atmosphere (Pakudu & Rizal, 2024). Based on the analysis of the quiz results, it was clear that students experienced an improved understanding of the subject matter after taking the quiz, thanks to the immediate feedback that allowed them to quickly find out the mistakes they had made and improve their understanding. In addition, Quizziz also encourages students to think more critically through questions that not only test their factual knowledge, but also challenge them to analyze, relate or apply the concepts they have learned in a broader context.

Feedback provided by students and UINSA PPL students showed that the application of these two methods proved effective in creating a more fun, interesting, and stimulating learning atmosphere. Many students expressed that they felt more motivated and enthusiastic in following the lessons, especially when they were directly involved in interactive activities involving ice breaking and Quizziz methods. On the other hand, UINSA PPL students who conducted observations at IPIEMS Surabaya Junior High School noted a significant increase in students' participation and motivation during learning, which was also followed by an improvement in their learning outcomes. They also observed that students became more active in participating in class discussions and showed positive progress in understanding the material taught. Overall, the implementation of these two methods not only improved the quality of learning, but also created a more dynamic and interactive learning environment. This, in turn, supported the development of students' critical thinking skills and contributed to the achievement of better learning outcomes.

### **CONCLUSION**

The application of ice breaking methods combined with the use of interactive applications such as Quizziz has proven effective in improving student engagement, motivation, and learning outcomes at IPIEMS Surabaya Junior High School. The ice breaking method creates a more relaxed and fun classroom atmosphere, reduces tension, and helps students feel more comfortable to actively participate in every learning activity. This approach not only makes students more open and excited about learning, but also has a positive impact on their overall engagement. When students feel more relaxed and less pressured, they tend to be more prepared to learn and answer questions with confidence, which can ultimately improve the overall quality of the teaching and learning process.

On the other hand, the use of Quizziz as an interactive app adds a new dimension to learning by providing immediate feedback after students answer each question. This feature allows students to immediately find out their mistakes and improve their understanding of the material that has been taught. With a competitive element and challenge in the form of interactive quizzes, students are encouraged to think more critically and be more engaged in learning. The combination of the ice

breaking method that creates a positive atmosphere and the use of Quizizz that improves student understanding forms a more dynamic, fun and effective learning environment. The implementation of these two methods can also be a good example for other educational institutions in facing the challenges of the development of the digital era, while improving the quality of teaching in schools in Indonesia.

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