# Uncovering Students' Perceptions of Slido: An Innovative Engagement with Real-Time Interactive Technology in ESP

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**A R T I C L E   I N F O**

**A B S T R A C T**

The integration of technology in education, particularly in English for Specific Purposes (ESP) courses, has become increasingly important in providing students with effective and engaging language learning experiences. However, traditional teaching methods have long been criticized for their inability to engage students and promote active participation in the learning process. To address this, this study explored the impact of Slido, an interactive platform, on classroom engagement and learning outcomes in an ESP course. Mixed methods were employed, including a questionnaire analyzed quantitatively through descriptive statistics and qualitative analysis of open-ended questions. The findings indicated that Slido technology influenced students' perceptions of classroom engagement, motivation, and satisfaction. The interactive features of Slido, such as quizzes, polls, and surveys, fostered immediate feedback and increased student engagement. Two implications arose: ESP teachers were encouraged to incorporate Slido to create dynamic learning environments that enhance participation, motivation, and outcomes. Students were encouraged to actively participate in Slido activities to develop practical language skills for real-world contexts. Slido empowered students in their language learning process, preparing them for future professional goals. Further research was recommended to investigate the long-term effectiveness of Slido technology, as well as its impact on ESP teachers' practices and professional development. Overall, Slido technology showed the potential in transforming ESP classrooms into interactive and engaging learning environments. It had the potential to revolutionize language learning and provide students with practical English language skills.

## 1. INTRODUCTION

Since the COVID-19 pandemic, technology has transformed the education system, introducing new teaching and learning techniques (Kang, 2021; Mbhiza, 2021; Ullah et al., 2021). In recent years, technology integration in language learning classrooms has increased significantly. For example, the use of technology in English for Specific Purposes (ESP) courses has increased as educators strive to provide more effective and engaging language learning experiences. According to a study by (Dzięcioł-Pędich & Dudzik, 2021; Wei, 2022), using technology in ESP courses improves students' language proficiency, motivation, and interest in learning. Incorporating technology into language learning classrooms has become increasingly significant in modern education, providing students with new learning and development opportunities.

Technology offers several benefits, including improved learning outcomes, increased student engagement, immediate feedback, and opportunities for autonomous and individualized learning (Chiu, 2021; Memon et al., 2022). In addition, technology-based activities allow students to practice language skills in authentic contexts, making learning more meaningful and engaging (Miller, 2018). According to (Akinade & Temitope, 2022), technology also enables instructors to provide differentiated instruction, which can help meet learners' diverse requirements and preferences. Additionally, it has been discovered that interactive technology, such as quizzes and games, improves learning outcomes by increasing knowledge retention and recall (Wassalwa & Iffah, 2022; K.-H. Yang & Chen, 2021). The immediate feedback provided by interactive technology enables students to identify their strengths and weaknesses and concentrate on improvement areas. For example, digital flashcards and software for periodic repetition can help students memorize new vocabulary more effectively. In contrast, virtual simulations and role-playing activities can help students practice language skills in authentic and relevant contexts.

Interactive technology has been found to increase classroom engagement by encouraging active participation and collaboration among students (Fonseca & García-Peñalvo, 2019; Onyema et al., 2019). Promoting student-centered through interactive activities encourages students to participate actively in

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their learning process. In addition, interactive technology can contribute to a classroom environment that encourages curiosity, creativity, and innovation.

However, traditional teaching methods have long been criticized for their inability to engage students and promote active participation in the learning process (Deslauriers et al., 2019) particularly in English for Specific Purposes (ESP) courses where learners need specialized language skills for their future careers (Fitria, 2020). Furthermore, ESP classrooms found several challenges, including the difficulty of modifying the course to the specific needs of the students and maintaining their motivation and engagement throughout the learning process (Dja'far et al., 2016). A significant challenge is the diversity of language proficiency levels among students, which necessitates that instructors deliver courses that meet the needs of both novice and advanced learners (Brzoza, 2020). Creating relevant and engaging materials that reflect the real-world situations and contexts of the students' professional disciplines is another obstacle (X. Yang & Wyatt, 2021). Moreover, more than traditional teaching techniques, such as lectures and readings, may be required to actively engage students in learning. Consequently, according to (Mane, 2020), ESP instructors must investigate innovative and interactive teaching strategies to create a stimulating and challenging learning environment that boosts student motivation and engagement. Regarding this case, according to recent studies, integrating technology into the classroom can potentially transform student and teacher learning experiences (Currie, 2016; Eiland & Todd, 2019). For example, it has been demonstrated that using Slido technology in ESP courses creates a more interactive and engaging learning environment.

New learning-enhancing tools and platforms emerge as technology continues transforming the education system. Slido, an interactive platform that enables real-time participant interaction and engagement, is one of these technologies that has garnered popularity in recent years. Several researches have been conducted to examine the advantages and disadvantages of using Slido in education, particularly in English language teaching. One study by (Muthmainnah, 2019) examined the use of Slido in higher education and found that students' participation in structured classes taught using the application increased. According to the researcher, using Slido increased students' participation in asking questions, making comments, and completing basic tasks. In addition, (Aslan et al.,2019) discovered that using real-time interaction-based tools increased student engagement and participation, leading to a more positive learning experience. These results indicate that the Slido technology has the potential to resolve the limitations of traditional teaching methods and create a more effective learning environment for ESP students.

Moreover, according to a study by (TLokare et al., 2021), it was using InterviewBit and Slido, the overall learning outcomes improved by approximately 20%. Cognitive and affective aspects related to learning are also considered in measuring the cumulative impact. In addition, (Holovnia et al., 2023) examined several interactive survey tools, including Mentimeter, AhaSlides, and Kahoot! Wooclap, Socrative, Poll Everywhere, and Slido, and discovered that the number of student responses during lectures increased. Lastly, (Zulfa & Laras, 2020) also examined the combination of Schoology, an application with all the features required for the learning process, and a question-and-answer and polling platform that will make learning interactive and enjoyable. Schoology and Slido can enhance the quality of instruction and teacher-student interaction.

Even though Slido technology has demonstrated potential educational benefits, some limitations must be addressed. For instance, (Holovnia et al., 2023) found that anonymous quizzes could be created using an online survey application, and the same student could respond multiple times. Therefore, accounting for highly active students in this situation is challenging. Furthermore, it may be overwhelming for some students, particularly those unfamiliar with the technology.

Lastly, this study becomes urgent as the increasing significance of technology in English language instruction, particularly in ESP courses. As technological using continues to increase, its incorporation into the educational environment has become important. Researchers and educators acknowledge the need to investigate and evaluate the efficacy of innovative technologies, such as Slido, in improving student engagement and learning outcomes (Muthmainnah, 2019; Zulfa & Laras, 2020). This urgency is concerned with the need to address the limitations of traditional teaching methods and develop more effective and efficient learning environments for ESP students (Deslauriers et al., 2019).

Then the importance of this study focuses on how students perceive Slido as a real-time interactive technology within the context of ESP courses. This study contributes to the existing knowledge by examining the specific application of Slido in English learning classes and its effect on student engagement (Muthmainnah, 2019). This study provides new insights into the efficacy of interactive platforms for

language learning (Aslan et al., 2019) by investigating the use of Slido in a specialized domain such as ESP. This innovation is beneficial for educators, researchers, and policymakers who seek innovative ways to enhance language learning activities.

Therefore, this study aims to investigate the impact of Slido technology on classroom participation and learning outcomes in ESP courses. This study seeks to determine students' perceptions of Slido and its influence on their motivation, satisfaction, and overall learning experience using questionnaires and mixed methods. The findings of this study will inform ESP instructors of the potential benefits of incorporating interactive technologies such as Slido into their teaching practices (TLokare et al., 2021). In addition, this research contributes to a new understanding of technology integration in language education by providing recommendations for future implementation and additional research (Chiu, 2021; Wassalwa & Iffah, 2022) The main goal is to enhance language learning and pedagogical practices in English language teaching and learning process, particularly in ESP classrooms.

## 2. METHODS

This study employed a mixed-method research design, which combines quantitative and qualitative data collection and analysis techniques, to examine the students' perceptions regarding the use of Slido, an innovative engagement with real-time interactive technology in ESP, particularly in the Economic Sharia Law major. The quantitative component will involve the collection of numerical data at a particular time, while the qualitative component will involve the collection of in-depth, descriptive data through interviews, observations, and open-ended survey questions (Dawadi et al., 2021; Strijker et al., 2020).

The participants for this study were chosen from the English for Specific Purposes (ESP) course at UIN Sayyid Ali Rahmatullah Tulungagung, majoring in Economic Sharia Law. This selection aligns with the research focus on investigating the effectiveness of Slido technology in an ESP class. By studying ESP students, the aim is to understand how Slido can enhance their language learning experiences within the specialized major of Economic Sharia Law. Additionally, selecting participants from UIN Sayyid Ali Rahmatullah Tulungagung allows for consideration of the easiness of data collection by the researcher who taught the ESP class. Furthermore, the sample size of 72 participants was determined based on the number of students enrolled in the ESP course during the 2022-2023 academic year, ensuring feasibility within the available resources.

In this study, the Slido website was used as the interactive technology intervention in this investigation. Slido is an audience engagement platform that enables teachers to construct mobile-accessible interactive quizzes, polls, and surveys for students. In addition, the analytics feature of Slido enables instructors to monitor real-time student participation and performance.

To assess the effectiveness of Slido, a questionnaire was administered to the participants on students' perceptions of classroom engagement and learning outcomes. The survey consisted of ten Likert-scale questions regarding students' perceptions of their engagement, motivation, and satisfaction in the ESP course. The open-ended questions aim to collect more in-depth information about students' experiences with Slido technology. The data were collected using a Google Form-based questionnaire. Each participant was required to complete the questionnaire immediately following the closing of the ESP class meeting.

Lastly, the researcher analyzed the collected data using both quantitative and qualitative techniques. The survey data from the questionnaire were analyzed using descriptive statistics to determine the influence of Slido technology on student perceptions in ESP class. In addition, the data collected from the open-ended questions were analyzed to determine students' experiences with Slido technology and their feedback and suggestions. The analysis assists in determining whether the Slido technology positively affects students' perceptions of classroom engagement and learning outcomes.

## 3. RESULT AND DISCUSSION

### Results

To determine the students' perceptions about using Slido in ESP class, the researcher analyzed the mean scores from the Likert scale questionnaire responses and classified them into various categories based on the range score. This range score was established by (Zaki & Ahmad, 2017) in their previous study. According to this classification, mean scores ranging from 1.00 to 1.89 were considered extremely low and indicative of a negative response. Low scores were between 1.90 and 2.69, indicating a negative perception. Next, the range of mean ratings between 2.70 and 3.49 was categorized as moderate, indicating neither a

positive nor a negative perception. Then, the mean score between 3.50 and 4.29 indicated positive perception. Finally, responses with mean ratings between 4.30 and 5.00 were categorized as highly positive. Thus, here are the results of the descriptive statistics analysis of the questionnaire responses.

**Table 1.** Students Responses Towards Slido

| No. | Statement | SD | D | A | SA | Mean |
|---|---|---|---|---|---|---|
| | | (In Percentage) | | | | |
| 1. | Slido helps me to improve my understanding of the material. | 18.1 | 12.5 | 17 | 33 | 2.97 |
| 2. | Slido is a useful tool for online classes. | 10 | 8 | 13 | 41 | 3.18 |
| 3. | Slido is easy to access, powerful, and flexible. | 10 | 8 | 22 | 32 | 3.06 |
| 4. | I believe that Slido would be useful for other classes and subjects. | 9 | 4 | 25 | 34 | 3.17 |
| 5. | Slido helped me to compare my responses with those of others. | 14 | 7 | 17 | 24 | 2.99 |
| 6. | Is Slido a fun tool to use? | 9 | 9 | 9 | 45 | 3.25 |
| 7. | Slido makes the material more engaging for me. | 9 | 7 | 20 | 36 | 3.15 |
| 8. | With Slido, I can actively participate in class discussions. | 8 | 5 | 23 | 36 | 3.20 |
| 9. | I feel confident when answering questions using Slido, rather than raising my hand and answering directly. | 11 | 9 | 15 | 37 | 3.08 |
| 10. | Using Slido has improved the level of active interaction in my classroom. | 9 | 7 | 24 | 32 | 3.10 |
| **Average** | | | | | | 3.11 |

The table presents survey responses to the statements regarding Slido, an online real-time tool for classroom interaction. The data shows the percentage of respondents who answered each statement according to a Likert scale, with four possible responses: Strongly Disagree (SD), Disagree (D), Agree (A), Strongly Agree (SA), and Mean (Average). The survey results showed generally moderate perceptions of Slido as a tool for classroom interaction. The mean average of all responses was 3.11, indicating an overall moderate perception of the tool.

The responses to individual statements varied. Statement 6 ("Is Slido a fun tool to use?") received the highest percentage of Strongly Agree responses (45%) and had the highest mean average (3.25) of all statements, suggesting that respondents enjoyed using Slido. Statements 2 ("Slido is a useful tool for online classes") and 8 ("With Slido, I can actively participate in class discussions") also received high levels of agreement (41% and 36% Strongly Agree responses, respectively). In addition, they had mean averages above the overall mean (3.18 and 3.20, respectively).

Statement 1 ("Slido helps me to improve my understanding of the material") and Statement 4 ("I believe that Slido would be useful for other classes and subjects") both received moderate levels of agreement (33% and 34% Strongly Agree responses, respectively) and mean averages slightly above the overall mean (2.97 and 3.17, respectively). Statements 3 ("Slido is easy to access, powerful, and flexible"), 7 ("Slido makes the material more engaging for me"), and 10 ("Using Slido has improved the level of active interaction in my classroom") received moderate levels of agreement, with mean averages slightly below the overall mean (3.06, 3.15, and 3.10, respectively). Finally, Statement 5 ("Slido helped me to compare my responses with those of others") received a relatively balanced distribution of responses, with a moderate level of agreement (24% Strongly Agree) and a mean average slightly below the overall mean (2.99).

Overall, the survey results suggest that Slido is perceived as a useful tool for classroom interaction, with the respondents finding it engaging, fun to use, and enabling active participation in class discussions. While there were some areas where respondents were less enthusiastic (e.g., ease of access and comparison of responses with others), the overall perception of Slido was moderate. The findings of this survey could be useful for educators considering using Slido as a tool for classroom interaction, as they provide valuable insights into how students perceive the tool and how it can be effectively used to improve classroom engagement and interaction.

Furthermore, the two charts shown in Figure 1 present most of the respondents' preferences for submitting their solutions and answers. The survey results show that most respondents (87%) prefer anonymously submitting their answers. In comparison, only a small minority (13%) are willing to provide their names when submitting their solutions on Slido. This could be due to various reasons, such as concerns over privacy or fear of judgment from others in the group.

Regarding the preference for submitting answers, the results are divided, with 52% of respondents preferring to submit their answers in groups and 48% preferring to submit them individually. This suggests

that there needs to be a clear understanding of the best approach for submitting answers and that students may have different preferences based on their learning styles or other factors. Overall, these results highlight the importance of offering students the flexibility to choose how they interact with educational tools like Slido. For example, while some students may prefer to submit their solutions anonymously, others may be more comfortable providing their names, and the same is true for the preference to submit answers individually or in groups. As such, educators should consider providing different options for students to engage with educational tools like Slido to accommodate their student's diverse needs and preferences.
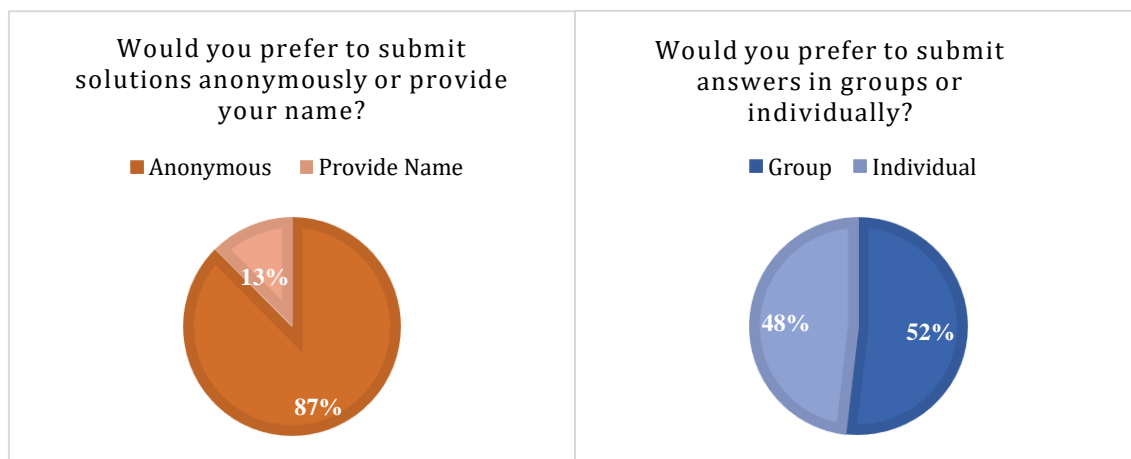


**Figure 1**. The student's preferences to submit their solutions and their answer

When comparing the two questions, we can see a greater preference for anonymity than group submission. This may suggest that students are more concerned about privacy and potential judgment from their peers than about collaborating with others. Some students feel more comfortable expressing their opinions and ideas when not identified by their names.

However, it is essential to observe that nearly half of the respondents prefer to submit their answers individually. This highlights that not all students learn best in a collaborative setting and that some may prefer to work independently. As such, educators should provide various options for students to engage with educational tools like Slido, including group and individual submissions. Overall, the results suggest that anonymity is an important consideration when using tools like Slido in the classroom and that educators should provide options for students to engage with the tool in a comfortable way. By doing so, they can promote greater participation and engagement among students, leading to better learning outcomes.
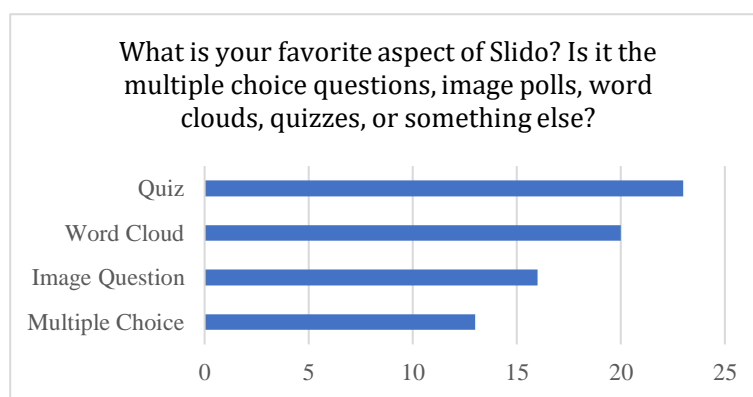


**Figure 2**. The students' favorite aspect of Slido

Furthermore, as shown in Figure 2, out of the 72 students who responded to the question, "What is your favorite aspect of Slido?" the majority favoured the quiz feature (23 students), followed closely by the word cloud feature (20 students). The image poll feature was the third most popular, with 16 students, while the multiple choice feature was the least popular, with only 13 students choosing it as their favorite aspect. This data suggests that students enjoy the interactive and engaging aspects of Slido, such as quizzes

and word clouds, which allow them to participate in the learning process actively. However, it also highlights the importance of providing a range of features and options within educational tools like Slido to cater to students' diverse needs and preferences.

When comparing the popularity of the different features, it is interesting to note that quizzes were the most popular, followed by word clouds and image polls. This may suggest that students enjoy the opportunity to test their knowledge and compete with their peers in a fun and interactive way. On the other hand, the relatively low popularity of the multiple choice feature may be because it is a more traditional and less engaging format for answering questions. These findings demonstrate the importance of providing students with interactive and engaging tools like Slido, which can enhance their learning experience and promote active participation. By understanding and responding to the preferences of their students, educators can create more effective and engaging learning environments that promote better learning outcomes.

**Students' Impression and Suggestion**
Before describing the students' feedback in detail, it is necessary to ascertain their perspective on their acceptance and suggestions and some certain obstacles. Therefore, figures demonstrating the appearance of the Slido website are provided in the following section.
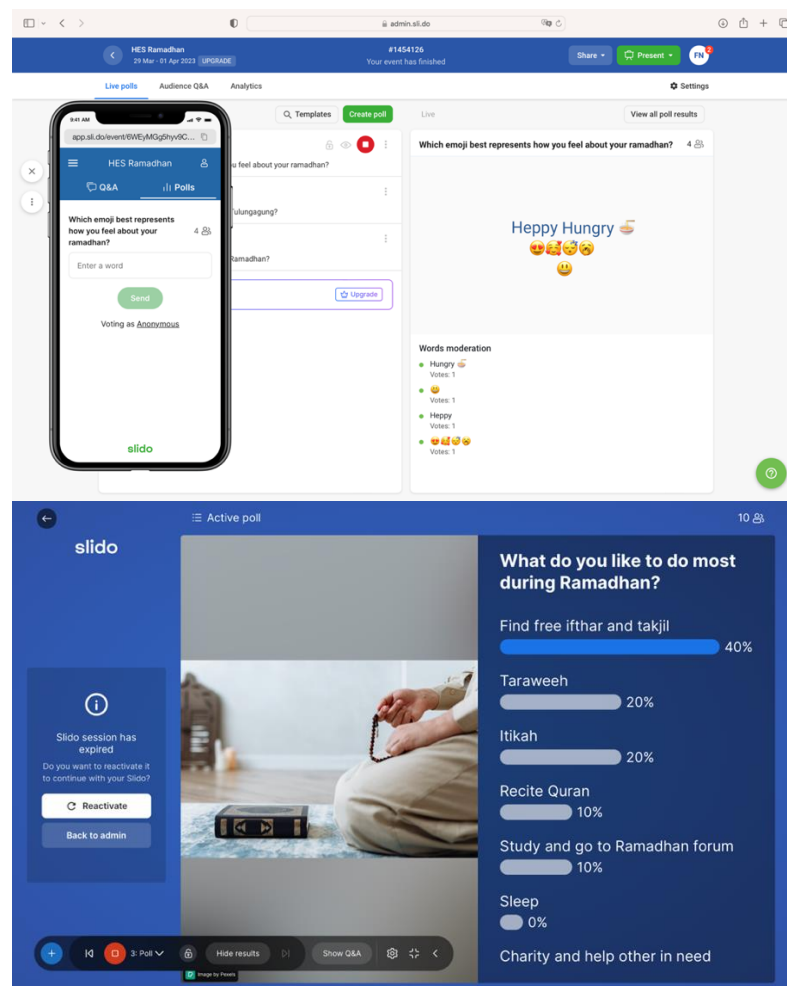


**Figure 3**. The example of students' responses to the ESP class activity.
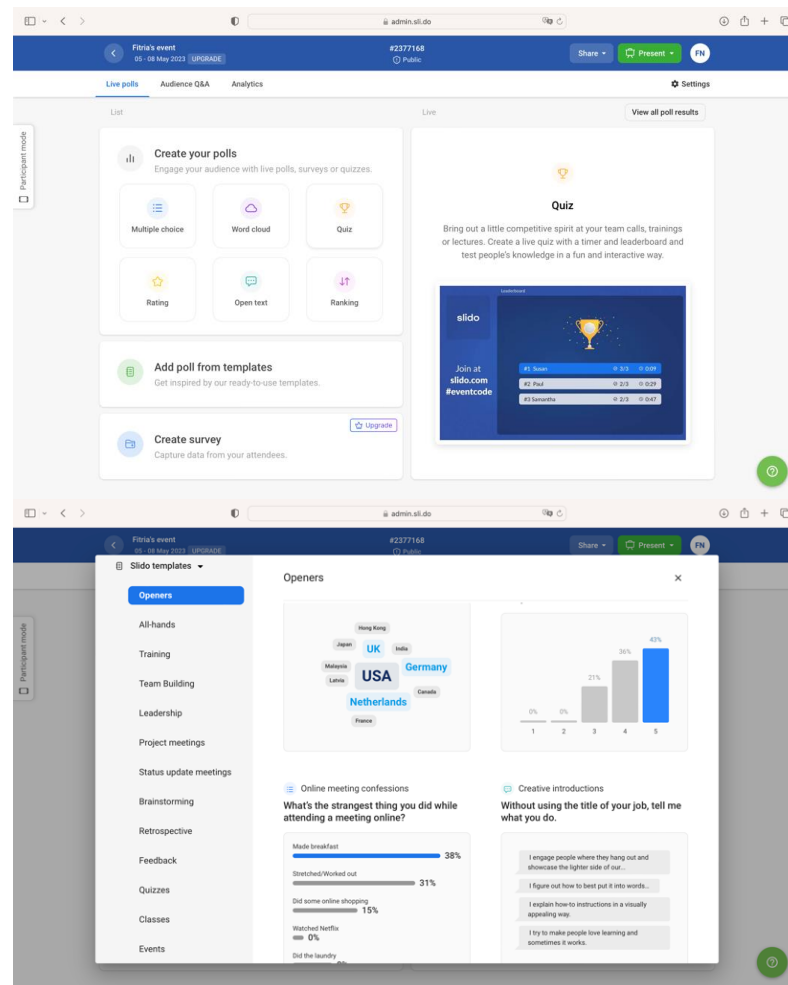
**Figure 4**. The example of Slido's website features

Based on the feedback from the students, the use of Slido in the ESP course in Economic Sharia Law has been well-received. Students have generally found Slido useful, engaging, and fun, with many expressing appreciation for how it helps make the learning process more interactive and engaging. For instance, one student commented, *"Slido is good and fun,"* while another noted that it is *"very easy to understand and interesting."* In addition, many students appreciated the platform's features and how they enhance the learning experience.

In addition to these positive comments, students also desire more features and activities on Slido. Live quizzes and games would be a great addition to the platform, as these activities would further enhance their learning experience. For example, one student said, *"Using Slido for study makes me enjoy. It's been good. More opening or accessing it will be even more convenient, even if it's on a network that's not very good."* Overall, the students are satisfied with using Slido in their course and would like to see even more opportunities for engagement and interaction on the platform.

Furthermore, dealing with future improvements due to students' difficulty using Slido, most students find Slido useful for their learning and think no significant improvements are required. For example, one student said, *"Slido gives great improvisation in learning, and I think Slido is good, no need more improve."* However, some students mentioned they faced issues with the long loading times and slow slides on their smartphones. For example, one student stated, *"The loading is long, and Slido is very slow on my smartphone."* Additionally, some students suggest that Slido should be accessible even with a poor network connection. Some students suggested adding more exciting features to Slido, such as animation, and improving the interface. As one student suggested, *"Added animation and Slido can be more interesting."* Another student recommended updating the app to make it easy to access and adding exciting features to make users happy.

A few students also suggested filtering out inappropriate words from the content. One student said, *"It is necessary to filter out inappropriate words."* Overall, the students appreciate the usefulness of Slido in their

learning, but some minor improvements could enhance the platform's effectiveness and user experience. Most students found Slido helpful for learning, and some minor improvements could make the platform more user-friendly and engaging. Slido developers need to consider the feedback from students to enhance the platform's features and address any issues that may arise.

**Discussion**

The survey results and the student's preferences provide valuable insight into using Slido as an interactive, real-time classroom aid. Students had a positive opinion of Slido, stating its utility, engagement, and ability to facilitate active participation in class discussions. These results are consistent with previous research on online interactive tools such as Slido (Muthmainnah, 2019; TLokare et al., 2021; Zulfa & Laras, 2020).

(Muthmainnah, 2019) discovered that students believed online interactive tools as beneficial for comprehending the material and increasing participation in class discussions. This is related to the results of the present survey, in which students reported that Slido helped them better comprehend the material and actively participate in class activities. Similarly, (Tasnim Wan Hussin et al., 2019) found that students valued the adaptability and accessibility of online classroom interaction tools. Again, this is in line with the survey's findings that Slido was regarded as accessible and adaptable. Furthermore, (Wassalwa and Iffah, 2022) investigated the effect of online tools on student engagement and found that students prefer some interactive features such as quizzes and word clouds. According to the current survey, most students consider the quiz feature to be their favourite aspect of Slido. The comparison with prior research indicates that the positive perceptions and preferences identified in the present survey are consistent with other studies findings regarding using online interactive tools for classroom interaction. These results demonstrate that Slido is an effective aid for increasing student engagement, comprehension, and participation in class discussions.

However, the survey also highlighted several student suggestions and concerns. By the findings of (Wang & Chia, 2022), they expressed their interest in additional features and activities, such as live quizzes. Additionally, students mentioned problems with lengthy loading times and the slideshows on smartphones, indicating the need for optimization and enhanced performance on mobile devices. Moreover, optimizing the platform for better performance on smartphones and ensuring accessibility even with a poor network connection would enhance the user experience, consistent with the findings of (Mu'awanah et al., 2021), who discovered that students struggled to obtain a better Internet connection during the Covid-19 pandemic.

In using Slido as a real-time instrument for classroom interaction, the survey results have multiple implications for educators and developers. First, the positive perceptions of Slido suggest that it can be a useful instrument for increasing student engagement and active participation in class discussions, particularly for English language learning. According to (Bernacki et al., 2020) research, educators can use Slido's features to create interactive learning environments that foster a deeper understanding and engagement with the material taught.

Second, the survey results emphasize the significance of offering flexibility in educational instruments such as Slido. Students have various requirements and preferences when participating in online activities, including anonymity and individual/group submissions. In their study, (Ergün & Adıbatmaz, 2019) suggested that educators should let students select their preferred mode of engagement and learning style. For example, students who favour independent work may have greater engagement.

Moreover, the Slido's interactive features, such as quizzes and word clouds, suggest that incorporating interactive elements into educational tools can increase student engagement and enjoyment of learning. Therefore, educators should consider incorporating such interactive features into their teaching activities to foster active participation, critical thinking, and knowledge retention among students (Garrison et al., 2021; Muthmainnah, 2019).

However, students also provided feedback and addressed concerns regarding the addition of live quizzes and games, as well as the optimization of Slido's performance on mobile devices. Therefore, educators and developers should consider the following suggestions to improve engagement, adaptability, and usability further. By utilizing Slido's features, educators can create interactive learning environments that foster a deeper comprehension of the material and greater student engagement while covering students' diverse needs and preferences.

Overall, the survey results demonstrate the value of Slido as a tool for classroom interaction and provide educators and developers with valuable insights for enhancing student engagement and the learning experience. Educators and developers can create a more inclusive, interactive, and effective learning environment by considering students' preferences and suggestions.

## 4. CONCLUSION

In conclusion, this study explored students' perceptions of using Slido as a real-time interactive tool in ESP class. The findings indicate that Slido is generally viewed as moderate by students and useful, as it helps improve understanding, enhances engagement, and provides an enjoyable learning experience. In addition, the study highlights the importance of flexibility in educational tools, including options for anonymous and identified submissions, as well as individual or collaborative activities.

Educators can explore Slido's strengths to create interactive learning experiences that promote engagement and critical thinking. They should consider incorporating features like quizzes and word clouds to encourage active participation. Developers can enhance Slido by optimizing its performance on mobile devices, incorporating live quizzes and games, and considering student suggestions for improving the interface and filtering inappropriate content.

Overall, this research provides valuable insights for educators and developers, suggesting that Slido can effectively promote student engagement and enhance learning experiences. Further research could explore the long-term effects of using Slido and its effectiveness in different educational contexts.

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