UTILIZATION OF THE "SAYA INGIN BERTANYA" APPLICATION TO IMPROVE UNDERSTANDING OF LEARNING MATERIALS IN GRADE X SMA AL-WASHLIYAH 1 MEDAN

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INFO ARTIKEL

ABSTRACT

The aim of this research is to measure the effectiveness of using the "Saya Ingin Bertanya" application in improving understanding of learning material in class X SMA AL-WASHLIYAH 1 MEDAN. This research uses an experimental method, which aims to determine the effect of the intervention imposed on research subjects. Data collection was carried out using several techniques, namely class randomization, pre-test and post-test, questionnaires, and monitoring application activity. Data analysis in this research involved descriptive statistical tests, independent sample t-two tests, and simple linear regression analysis. The "Saya Ingin Bertanya" application is designed to help students ask questions anonymously and get answers to their questions in real-time. The main features of this application include a question and answer forum but the identity is unknown, asking questions on topics being studied and topics to be studied, asking questions outside the learning topic and learning resources that are uploaded by the teacher and can be accessed directly by students. The results of the analysis show that there is a significant difference in increasing understanding of the material between the control group and the experimental group after the intervention. The significance value obtained ($p < 0.05$) shows that the difference between the two groups did not occur by chance, but was significant.

How to Cite:

INTRODUCTION

Education in Indonesia continues to experience various complex challenges. One of the main challenges is how to ensure that students not only learn, but truly understand the material being taught. Understanding the material is key to educational success as students who understand the material tend to be better able to apply it in their daily lives and achieve higher academic performance. Lack of material understanding can have an impact on the overall low quality of student learning outcomes (Ardila & Rigianti, 2023). Therefore, various innovations in the learning process continue to be developed to improve the quality of education.

In today's digital era, technology plays a very important role in education. The use of technology in learning allows the creation of new methods that are more interactive and interesting for students. Various learning applications have been developed to help students understand the material more easily and enjoyably. Technology also allows teachers to provide more personalized teaching that suits the needs of each student (Nento & Manto, 2023).

Student learning activeness is a condition, behavior, or activity that occurs in students during the learning process. This is characterized by student involvement in the learning process, such as the ability to ask questions, provide feedback, complete assignments, respond to questions from the teacher, collaborate with other students, and be responsible for the assignments given. Student learning activities are the most important component of learning because they have a direct impact on the success of the learning process. According to (Busa, 2019), active learning of students is a teaching and learning process that emphasizes students' activeness physically, mentally, intellectually and emotionally with the aim of obtaining learning outcomes in the form of a combination of cognitive, affective and psychomotor aspects while students are in class.

A student must have the ability to develop their knowledge, one of which is through the ability to ask questions. Students' questioning skills often receive less attention, as evidenced by the lack of research that focuses on this topic. Most studies discuss teachers' questioning skills, which are considered as the basic skills that must be possessed by an educator. In fact, students' questioning ability is also an important aspect that needs to be studied, especially in the context of

learning implemented in Indonesia through the 2013 Curriculum (Supriatna, 2019).

One of the problems often encountered is that many students feel shy to ask questions in class. There are several reasons for this, such as the fear of being considered stupid by friends, lack of confidence, and fear of negative responses from the teacher. A classroom culture that is less supportive of students' active participation is also a factor that makes students hesitate to ask questions. As a result, many students choose to remain silent even though they do not understand the material being taught (Prilanita & Sukirno, 2017).

At SMA AL-WASHLIYAH 1 MEDAN, as in many other schools, there are challenges in ensuring that grade X students truly understand the material being taught. Some students find it difficult to keep up with the lessons due to less interactive teaching methods or lack of access to additional learning resources. Internal survey results showed that many students felt they needed additional help outside of class hours to better understand the material.

The "Saya Ingin Bertanya" app comes as one of the solutions to the problem. The app is designed to help students ask questions anonymously and get answers to their questions in real-time. The main features of this application include a question and answer forum but the identity is unknown, asking questions on the topic being studied and the topic to be studied, asking questions outside the learning topic and learning resources uploaded by the teacher and can be accessed directly by students. By using this app, students can more easily get help whenever they need it.

The use of the "Saya Ingin Bertanya" app in learning offers a range of significant benefits. The app increases interaction between students and teachers, allowing students to ask questions without having to be identified. In addition, the app provides learning resources that can be accessed at any time, helping students understand the material better. The notification feature also ensures that student questions are not missed by the teacher.

The implementation of the "Saya Ingin Bertanya" application at SMA AL-WASHLIYAH 1 MEDAN was carried out through several stages. First, the app was introduced to students and teachers through presentations and specialized training. Teachers were given training on how to use the app and how to respond effectively to students' questions. Students were also given

guidance on how to utilize the app to improve their understanding of the subject matter.

The successful implementation of this application also depends on the support of various parties, including teachers, students and parents. The role of teachers in encouraging students to actively ask questions is very important, as is the support of parents in motivating their children to use the application. With good collaboration between all parties, it is expected that this application can have a significant positive impact on the learning process and students' understanding of the material.

The purpose of this study is to measure the effectiveness of using the "Saya Ingin Bertanya" application in improving the understanding of learning materials in class X SMA AL-WASHLIYAH 1 MEDAN. It is hoped that the results of this study can provide a clear picture of the benefits of the application and encourage other schools to adopt similar technology in their learning. Thus, the quality of education in Indonesia can be continuously improved through innovation and proper utilization of technology.

RESEARCH METHOD

This research uses an experimental method, which aims to determine the effect of the intervention imposed on the research subject. This research was conducted at SMA Al-Washliyah 1 Medan, which is located at Jalan SM. Raja km.5.5, Harjosari 1, Medan Amplas District, Medan. The implementation of the research took place in the odd semester of the 2023/2024 academic year. The population of this study included all grade X students at the high school, with a randomly selected sample to ensure valid representation.

The independent variable in this study is the utilization of the "I want to ask" application in improving the understanding of learning materials in the classroom, while the dependent variable is the level of confidence of the learners. In this case, two classes will be involved: one as the control class and one as the experimental class. The experimental class will be given the treatment of using the "I want to ask" app after the teacher has finished delivering the material.

Data collection was conducted using several techniques. First, class randomization was used to randomly divide students into two groups, namely the control group and the experimental group, in order to reduce bias in the study. Second, pre-test and post-test were used to measure the understanding of the material before and after the intervention. Third, a material comprehension questionnaire was distributed to students to obtain data on their perceptions regarding material comprehension before and after the utilization of the application. Finally, app activity monitoring was conducted by recording data on the frequency and types of questions asked through the app, as well as the time learners spent using the app and their level of engagement.

Data analysis in this study involved several steps. First, descriptive statistical tests were used to summarize and describe the data comprehensively. Second, the independent samples t-test was used to compare the means of two groups that are independent of each other, namely the control group and the experimental group. Third, correlation analysis was used to measure the extent to which two variables are related or associated with each other. Finally, simple linear regression analysis was used to understand the relationship between the utilization of the "I want to ask" application and the improvement of material understanding.

RESULT AND DISCUSSION

Table 1. The Score of Pre-test and Post-test of Experimental Class

NO	Student's Initials	Pre-test	Post-test
1.	RU	35	70
2.	AP	55	85
3.	FA	35	85
4.	AR	60	85
5.	RT	60	70
6.	MA	60	85
7.	HL	45	75
8.	FI	35	80
9.	PD	70	90
10.	PR	60	90
11.	NL	60	90
12.	RF	60	60
13.	KR	60	85
14.	NK	35	75
15.	FA	55	80
16.	MA	55	80

17.	AR	65	80		1.	FH	45	80
18.	MR	70	95		2.	AB	55	80
19.	HZ	45	85		3.	SR	55	80
20.	ES	55	85		4.	AA	55	80
21.	AH	55	60		5.	NS	55	70
22.	CA	65	70		6.	FA	60	75
23.	SA	60	75		7.	JA	35	65
24.	MR	60	70		8.	MD	45	65
25.	HN	45	80		9.	MF	30	65
26.	MH	35	80		10.	PA	45	65
27.	FB	40	85		11.	RF	45	65
28.	MA	40	85		12.	DP	60	70
					13.	MA	60	70
					14.	KS	60	80
					15.	SA	60	75
					16.	MS	35	65
					17.	MA	45	70
					18.	FP	40	80
					19.	MQ	40	85
					20.	NP	50	65
					21.	PI	50	70
					22.	JT	35	85
					23.	FH	45	75
					24.	AP	35	75

From the analysis of Table 1 which shows the pre-test and post-test scores of experimental class students after the application of the "Saya Ingin Bertanya" application, it can be concluded that there is a significant increase in students' understanding of the material. The data shows that most students experienced an increase in post-test scores compared to the pre-test, reflecting the effectiveness of the application in supporting the learning process. For example, the student with the initials AP showed an increase in score from 55 in the pre-test to 85 in the post-test. This indicates that the "Saya Ingin Bertanya" app made a positive contribution in improving students' understanding of the material. This finding is consistent with the purpose of using the app, which is to assist students in understanding the subject matter better.

The significant increase in post-test scores of most students indicates that the utilization of the "Saya Ingin Bertanya" application can be effective in improving the quality of learning. With this app, students have easier access to ask questions and get answers in real-time, thus supporting their understanding of the subject matter. The implication of this result is that technology, such as the " Saya Ingin Bertanya" app, can be an effective tool in improving students' understanding of the material and enriching the learning process. Thus, the integration of technology in education can provide significant benefits in improving the quality of learning and student learning outcomes.

Table 2. The Score of of Pre-test and Post-test of Control Class

NO	Student's Initials	Pre-test	Post-test

From the analysis of Table 2 which shows the pre-test and post-test scores of control class students, it can be seen that there are variations in the improvement of students' material understanding after not using the "Saya Ingin Bertanya" application. For example, the student with the initials ZA showed an increase in score from 50 in the pre-test to 70 in the post-test. Although there was an increase, it was not as big as the increase seen in the experimental class using the "Saya Ingin Bertanya" application. This shows that the application has a role in improving students' understanding of the material.

The varying increase in post-test scores in the control class indicates that without the utilization of the "Saya Ingin Bertanya" application, students may face challenges in understanding the lesson material better. These differences highlight the importance of integrating technology in the learning process to effectively support student understanding. The implication of these results is that the "Saya Ingin Bertanya" application can make a significant contribution in increasing students' understanding of the material compared to conventional learning without technology. With this application, students have easier access to ask questions and get help in understanding the lesson

material, so they can improve their learning outcomes.

Table 3. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Pre-Test Eksperimen	28	35	70	52.68	11.343	128.671
Post-Test Eksperimen	28	60	95	79.82	8.658	74.967
Pre-Test Kontrol	24	30	60	48.13	9.186	84.375
Post-Test Kontrol	24	65	85	73.13	6.886	47.418
Valid N (listwise)	24					

From the descriptive statistics in Table 3, it can be seen that there are differences in characteristics between the pre-test and post-test scores in the experimental and control groups. In the experimental group, the pre-test score ranged from 35 to 70, with an average of 52.68 and a standard deviation of 11.343. While the post-test scores had a range of values between 60 to 95, with an average of 79.82 and a standard deviation of 8.658.

Meanwhile, in the control group, the pre-test scores ranged from 30 to 60, with an average of 48.13 and a standard deviation of 9.186. Meanwhile, the post-test scores ranged from 65 to 85, with an average of 73.13 and a standard deviation of 6.886. This shows that the post-test scores in the experimental group tend to have higher values compared to the control group.

In addition, the lower variance value in the experimental group compared to the control group indicates that the student scores in the experimental group are more homogeneous or close to the average. This indicates that the application of the "I Want to Ask" application can have a consistent impact in improving students' understanding of the material, thus reducing the variation in scores between students.

Thus, the results of the descriptive statistical analysis in table 3 indicate that the utilization of the "I Want to Ask" application can make a positive contribution in improving students' understanding of the material, while reducing the variability of scores between students. This confirms the importance of technology integration in education to improve the quality of learning and student learning outcomes.

Two Sample Indepentdent T-Test

Group Statistics

	kelas	N	Mean	Std. Deviation	Std. Error Mean
hasil_belajar	post_eksperiment	28	79.82	8.658	1.636
	post_control	24	73.13	6.886	1.406

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
hasil_belajar	Equal variances assumed	.258	.614	3.050	50	.004	6.696	2.196	2.287	11.106

		3.104	49.749	.003	6.696	2.157	2.363	11.030
Equal variances not assumed								

In this study, an independent sample t-test was used to compare the average pre-test and post-test scores between the control group and the experimental group. This analysis aims to evaluate whether there is a significant difference in the improvement of material understanding between the two groups after the intervention using the "Saya Ingin Bertanya" application. The results of the analysis showed that there was a significant difference in the improvement of material understanding between the control group and the experimental group after the intervention. The significance value obtained ($p < 0.05$) indicates that the difference between the two groups did not occur by chance, but significantly.

The results of the independent sample t-test showed that the utilization of the "Saya Ingin Bertanya" application had a significant impact in improving students' understanding of the material compared to the control group that did not use the application. This significant difference indicates that technology intervention in the form of apps can improve learning effectiveness and help students in understanding the subject matter better. This finding underscores the importance of technology integration in education to create a more interactive learning environment and support students' active participation in the learning process. Given these significant results, it can be concluded that the "Saya Ingin Bertanya" app has the potential to be an effective tool in improving students' understanding of the material and improving the overall quality of learning.

In the current digital era, the use of information and communication technology (ICT) in learning has become a necessity to improve the quality of education. One form of ICT utilization that is increasingly popular is the use of interactive learning applications. This research focuses on the use of the "Saya Ingin Bertanya" application to improve understanding of learning material in class X SMA Al-Washliyah 1 Medan.

Several previous studies have shown the effectiveness of using learning applications in increasing student understanding. For example, Sari et al. (2019) found that the use of mobile learning applications can improve high school students' learning outcomes in biology subjects. The research shows a significant increase in students' average grades after using learning applications.

In line with this, Pratama and Haryanto (2017) studied the use of Android-based learning applications to increase high school students' learning motivation. The results of their research show that learning applications can increase students' interest and involvement in the learning process, which in turn has a positive impact on understanding the material.

In a more specific context, Nugroho et al. (2020) examined the effectiveness of an interactive question and answer application in increasing understanding of mathematical concepts in high school students. They found that students who used the application showed a better increase in understanding compared to conventional learning methods.

Another study by Widodo et al. (2018) explored the use of question-based learning applications to improve high school students' critical thinking skills. The results of their research show that the application is effective in stimulating students to ask more in-depth and critical questions, which ultimately improves their understanding of the subject matter.

In the context of language learning, Siregar and Nasution (2021) researched the use of interactive learning applications to improve the English language skills of high school students in Medan. They found that the app helped students in improving vocabulary and grammatical understanding significantly.

Based on these studies, it can be concluded that the use of interactive learning applications, such as "Saya Ingin Bertanya" has great potential to improve students' understanding of learning material. These applications can provide a more interactive and personalized learning experience,

allowing students to ask questions and get immediate feedback.

However, it should be noted that the successful implementation of learning applications also depends on other factors such as the readiness of technological infrastructure, the teacher's ability to integrate technology in learning, as well as support from the school and parents. Therefore, further research regarding the use of the "Saya Ingin Bertanya" application at SMA Al-Washliyah 1 Medan needs to consider these aspects to ensure the effectiveness of its use in increasing students' understanding of learning material.

CONCLUSION

Based on the results of the study, the utilization of the "Saya Ingin Bertanya" application significantly improved the understanding of learning materials and self-confidence of grade X students at SMA Al-Washliyah 1 Medan. The results of the analysis showed a higher increase in post-test scores in the experimental group compared to the control group, as well as a reduction in score variability between students, signifying the effectiveness of the app in supporting learning. The findings show that the "Saya Ingin Bertanya" app is effective in supporting the learning process by providing easier access for students to ask questions and obtain answers in real-time. The findings also show that technology can create an interactive learning environment that is responsive to students' needs. In addition, the app encourages overall student engagement, demonstrating that technology integration can improve learning quality and student learning outcomes. For future research, it is recommended to examine other factors that influence the effectiveness of the app as well as develop additional features that can support the learning process more comprehensively, and explore the use of similar apps in various other educational contexts.

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