



THE USE OF WEBSITE-BASED LEARNING MEDIA TO IMPROVE THE READING SKILLS OF MADRASAH TSANAWIYAH STUDENTS

Adam Mudinillah¹, Sri Nur Rahmi², Fitria Hanifah³, and Vugar Abdullayev⁴

¹ Sekolah Tinggi Agama Islam Al-Hikmah Pariangan Batusangkar, Indonesia

² Yayasan Adra Karima Hubbi, Indonesia

³ Universitas Islam Negeri Mahmud Yunus Batusangkar, Indonesia

⁴ Azerbaijan University of Architecture and Construction, Azerbaijan

Corresponding Author:

Shir Ahmad Hamidi,

Department of Electrical Engineering Vocational Education, Faculty of Teacher Training and Education, Kabul University.
No. 13, Street No. 2, Lane No 1, Opposite of Shams London School, Kart-e Char, District 3, Kabul City, Afghanistan

Email: dean.bsc@karwan.edu.af

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Abstract

Advances in technology and communication tools in education have developed rapidly and become increasingly sophisticated, so paper-based learning has increasingly been set aside in education. One example is the use of online learning through the development of a learning-media website using Google Sites that contains games, quizzes, engaging and innovative videos, and other features to support students' success. This study aimed to create a learning-media website using Google Sites for reading skills. The study employed a quantitative method, and data were obtained from online interviews and online questionnaire distribution. The questionnaire was distributed to Madrasah Tsanawiyah students online by using Google Forms. The findings showed that the use of educational websites in the Education 5.0 era could benefit students, as demonstrated by improvements in various aspects of the four language skills. It can be concluded that the use of an appropriate website as a learning medium was attractive and innovative, as indicated by the finding that 80% of students obtained the highest scores. This study was limited because the research was conducted only online and not directly in the field. The researchers expect future researchers to examine other learning media. This study also recommends that future researchers use it as an additional reference when conducting research on language-learning websites.

Keywords: Google Sites, Madrasah Tsanawiyah, Website-Based Learning Media



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INTRODUCTION

Entering the twentieth century, which is known as the knowledge century and serves as a major foundation in various aspects of life, had a substantial influence on education (Alalwan, 2018). Educators are required not only to master academic knowledge but also to possess knowledge of modern technology (Grinberg et al., 2019). Technology is a field of knowledge that applies systematic behavior and systems as a means of solving problems effectively (Chi & Yu, 2018). At present, technology has developed rapidly, and educators should use this opportunity to employ Google Sites as effectively as possible as a medium for Arabic language learning (Khayyer et al., 2018). This opportunity should therefore be used to improve the quality of students' learning. Technology can be considered advanced when educators use it correctly and obtain accurate results.

In general, the use of technology today can have many positive effects on students (Evans et al., 2021), particularly in increasing their use of websites (Arabiourrutia et al., 2020). Technology serves as a means of simplifying work and producing better results (Evans et al., 2021). It also provides a pathway for establishing collaborative relationships and constructing meaning that is easier to understand (Horváth & Szabó, 2019). Education is a conscious and planned effort undertaken to assist students in the teaching and learning process within a conducive atmosphere (Hansen et al., 2018). The development of knowledge today has greatly influenced human life (Li et al., 2018). The function of education is to build and develop students' interests and talents for both personal and public purposes.

The important role of using an appropriate website as a learning medium can provide an effective alternative for improving students' reading skills in the Education 5.0 era (Hansen et al., 2018). Learning media are tools that support the learning process (Gao & Zhang, 2020). Learning media equipped with attractive features that are easy for students to understand can have positive effects, such as improving comprehension and fostering enthusiasm for learning (Li et al., 2018). This online learning medium represents technological progress in education and is intended to make materials accessible and understandable to students and to make the teaching and learning process enjoyable, so that learning is consistent with teachers' interests (Abbas & Sağsan, 2019). Learning media should embody a concept that provides convenience for students. Educators are required to manage the reading process in both face-to-face and online learning; this helps students improve their reading skills by considering correct words and sentences.

Media constitute an important factor in the learning process (Evans et al., 2021). Alternative online learning media greatly support the learning process, including the use of website-based learning media to improve the reading skills of Madrasah Tsanawiyah students (Hadgraft & Kolmos, 2020). The use of Google Sites for website-based learning to improve students' reading skills is intended to make the learning process less rigid, more attractive, and easier for students to understand (Hansen et al., 2018). One effect of this learning medium is that it can improve students' reading skills so that the learning objectives can be achieved effectively. The development of online learning media presents a challenge for teachers to continue creating attractive learning media for students in order to achieve those objectives. The use of Google Sites to improve students' reading skills employs a website-based teaching method that students must understand. Google Sites produces website-based learning media that can be provided to students and can support the improvement of their reading skills in Arabic language learning.

Google Sites is a website-building platform that provides various features and benefits for users in Arabic language learning (Plantin et al., 2018). Several uses and benefits of Google Sites in Arabic language learning are as follows. It helps teachers present learning materials: by using Google Sites, teachers can easily create an Arabic language-learning website by adding learning materials, assignments, and exercises. This can help teachers present learning materials in a more engaging and interactive manner (Cipolla et al., 2018). It increases student

engagement in learning: Google Sites can be used to create interactive websites that enable students to participate more actively in learning. For example, students can use discussion forums to discuss learning materials or use question-and-answer features to test their understanding (Evans et al., 2021). It improves students' technological skills: in the current digital era, technological skills are very important for students to master (Schneider et al., 2018). By using Google Sites in Arabic language learning, students can acquire new technological skills and improve their ability to use digital platforms.

It facilitates the monitoring and assessment of students' assignments: Google Sites provides features for collecting students' assignments and facilitates teachers' monitoring and assessment of those assignments (Ghermandi et al., 2020). This makes it easier for teachers to provide feedback and ensure that students can improve their performance in the future (Kouhizadeh et al., 2021). It facilitates distance learning: Google Sites can be used for distance learning, allowing students to learn Arabic from any location (Silver et al., 2018). This is particularly important in the current pandemic situation, in which distance learning has become a solution for many educational institutions. As explained above, Google Sites offers several uses and benefits in Arabic language learning (Cipolla et al., 2018). By using Google Sites, teachers can improve learning effectiveness, while students can experience more interactive and engaging Arabic language learning.

According to Jakob Nielsen, website-based learning has the potential to become an effective and efficient learning alternative, although it still requires development and adjustment to meet students' learning needs (Hansen et al., 2018). Norman stated that website-based learning is highly practical for use in the teaching and learning process (Cerbin-Koczorowska et al., 2021). Steve Krug explained that Google Sites is a web-based learning medium that greatly assists educators in providing materials to their students (Hwangbo et al., 2019). This represents an outstanding achievement for a website-based platform because it has had a positive effect on learning. According to Jared Spool, Google Sites is considered a useful platform for small and simple projects, with easy-to-use tools and effective integration with Google Suite.

This study seeks to re-examine the use of website-based learning media to improve the reading skills of Madrasah Tsanawiyah students by using Google Sites. Through Google Sites, educators can more easily assess Arabic language learning during the learning process. The use of Google Sites offers many meaningful benefits and should therefore be considered by educators as a medium for Arabic language learning. The purpose of Google Sites is to make learning easier for students to understand, to help educators assess students, and to enable educators to examine students' honesty when completing examinations. Based on the explanation above, action is needed to address problems related to learning media. The researchers therefore developed Google Sites as website-based learning media to improve reading skills and support the Arabic language-learning process at Madrasah Tsanawiyah.

The difference between this study and previous research is that the present study focuses more specifically on the use of website-based media in Arabic language learning to improve the reading skills of Madrasah Tsanawiyah students, whereas previous research discussed speaking skills only. This study examines the use of website-based media in Arabic language learning to improve students' reading skills, thereby making it easier for students to read Arabic texts both collectively and independently. When completing assignments provided by their teachers in the form of Arabic learning materials, website-based learning is highly practical during the teaching and learning process. Google Sites can be an effective and efficient tool for Arabic language learning, particularly in facilitating flexible, independent, and collaborative learning. The researchers therefore hope that this study will benefit Madrasah Tsanawiyah students and other learners.

RESEARCH METHOD

Research Design

A quantitative research approach is part of a systematic investigation of a phenomenon in which data are collected and then calculated or measured using computational and mathematical statistical techniques (Ghermandi et al., 2020). Website-based learning media were developed according to research procedures that employed a quantitative method (Evans et al., 2021). Quantitative research is systematic scientific research concerning parts, phenomena, and the causality of their relationships (Cerbin-Koczorowska et al., 2021). The numbers included in this study are not merely mathematical; rather, the study examines a problem that can be measured numerically. Types of quantitative approaches include causal-comparative, descriptive, comparative, and experimental methods (Silver et al., 2018). A quantitative research design or model develops theory, obtains certainty, examines social complexity, and describes reality, whereas a qualitative research design or model tests theory, generalizes social phenomena, and explains relationships among variables.

Research Target/Subject

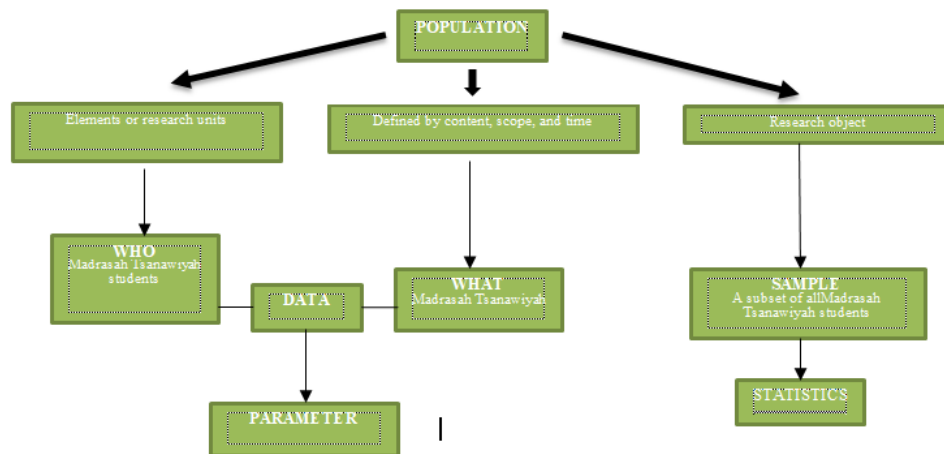


Figure 1. Population and Sample in Quantitative Research

Research Procedure

The research was conducted at a Madrasah Tsanawiyah. The object of this study was the feasibility of Google Sites as website-based Arabic language-learning media (Gao & Zhang, 2020). The method used in this study was quantitative (Marcolino et al., 2018). The research was generally carried out at a Madrasah Tsanawiyah (Chi & Yu, 2018). Data were collected through interviews, questionnaires, and observation. Questionnaires were distributed to students to determine the percentage level of the medium's feasibility for them. Observation was conducted by first understanding the relevant knowledge, determining the object to be observed, identifying the purpose of the problem to be addressed, preparing the observation, determining the required secondary data, and recording the observation results (Oktay et al., 2018). One example is conducting research at a Madrasah Tsanawiyah as evidence that can be used as a reference and for other purposes.

Instruments, and Data Collection Techniques

The technique used by the researchers to collect data involved gathering all information that could be measured, compared, and calculated on a numerical scale (Ghermandi et al., 2020). The processing of data collected from field respondents and observations formed part of the data-analysis technique in quantitative research (Schneider et al., 2018). Examples include

processing data according to respondent type, calculating hypothesis tests, and preparing tabulations (Evans et al., 2021). Quantitative research generally uses statistical tests, including inferential statistics, which are highly suitable when random sampling techniques are used and the population sample is clearly defined, and descriptive statistics, which are used to analyze data by describing and illustrating the collected information without changing its source. Inferential statistics consist of parametric statistics, which have strong analytical power when all assumptions are fulfilled, and nonparametric statistics, which are commonly used for nominal and ordinal data.

RESULTS AND DISCUSSION

Website-based learning media using Google Sites were examined through a quantitative research method. A quantitative method consists of a series of investigations in which data are collected and then measured using computational or mathematical statistical techniques. Quantitative data are commonly collected through questionnaires, interviews, and observation. Research that uses numerical and countable data is also referred to as quantitative research. In this study, quantitative data were obtained through a questionnaire used as the research instrument. According to Sugiyono, quantitative research is a method grounded in positivist philosophy and used to examine a particular sample or population. Quantitative research methods are divided into inferential and descriptive methods. One example of quantitative research is the use of website-based learning media in Arabic language learning at Madrasah Tsanawiyah, in addition to many other examples.

Table 1. Questionnaire Results

No.	Statement	Data Validity
1	The use of Google Sites as website-based media in Arabic language learning can encourage students' curiosity	0 - 50
2	The use of Google Sites as website-based media in Arabic language learning is a practical online medium	0 - 42
3	The material provided in Google Sites is highly attractive and easy for students to understand	0 - 50
4	The material presented through Google Sites as website-based media in Arabic language learning can encourage students to think critically	0 - 45
5	The material presented through Google Sites as website-based media in Arabic language learning is suitable for all students' learning styles	0 - 40
6	The use of Google Sites as website-based media in Arabic language learning makes students more creative and innovative	0 - 45
7	Google Sites provides enjoyable learning for students	0 - 60
8	The use of Google Sites as website-based media in Arabic language learning can increase curiosity and respect for other people's opinions	0 - 65
9	The use of Google Sites as website-based media in Arabic language learning can train students to think critically and explain their answers	0 - 50
10	The research examples presented in the website-based learning media are very clear	0 - 45
11	The material provided through Google Sites is highly accurate and reliable	0 - 50
12	The material used in Google Sites is consistent with the learning content being taught	0 - 65
13	Google Sites is a means of facilitating learning for students	0 - 45
14	Google Sites is highly practical and has therefore become a technological tool favored by students	0 - 50

The table above contains statements from several questions concerning the use of Google Sites as website-based media for Arabic language learning, as examined by the researchers at a Madrasah Tsanawiyah. The statements generated from the questions in Google Sites greatly assisted the researchers in examining its use among Madrasah Tsanawiyah students. The study tested 15 questions containing statements about the benefits, purposes, and functions of Google Sites for Madrasah Tsanawiyah students. The statement concerning the benefits of using Google Sites obtained a percentage of 50% in the strongly agree category. The statement that Google Sites is practical and attractive website-based learning media obtained 42.1% in the strongly agree category. The study also examined whether Google Sites could encourage students to think more critically, obtaining 45% in the strongly agree category.

The statement that the use of Google Sites can encourage respect for other people's opinions obtained 65% in the strongly agree category. The statement indicating that the examples provided in the Google Sites learning media were very clear obtained 45% in the strongly agree category. The statement that Google Sites could facilitate learning also obtained 45% in the strongly agree category. The other statements likewise received responses in the strongly agree category. The table shows that Google Sites was highly favored by students, with the highest strongly agree percentage reaching 65% and the lowest reaching 40%. Research using Google Sites media can make it easier for students to learn at home or at school.

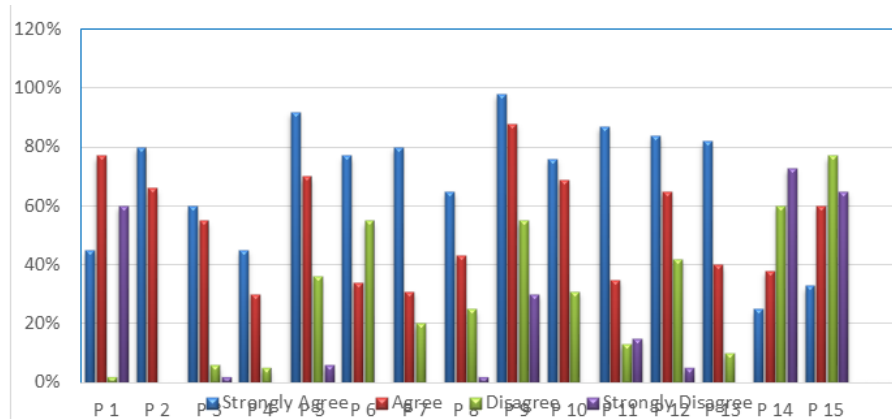


Figure 2. Google Sites as Website-Based Learning Media

The figure above presents a graph concerning the use of Google Sites as website-based learning media. The results of testing the questions in Google Sites were as follows. Thirty students served as the research subjects. The researchers used 15 questions to test students' ability to answer the questions provided in Google Sites. The highest result was 65%, which was categorized as strongly agree (SA). The second-highest percentage was 60%, also categorized as strongly agree (SA). The third-highest result was 50%, likewise categorized as strongly agree. The lowest result in Google Sites was 0% in the strongly disagree category. The second-lowest result was 5% in the strongly disagree category. These results indicate that strongly agree was the highest response category.

The research-test data obtained through Google Sites from Madrasah Tsanawiyah students can be explained as follows. In the strongly agree category, the highest percentage was 65%, which was the highest result among the available categories, while the lowest percentage in this category was 43%. In the agree category, the highest percentage was 45%, while the lowest was 20%. In the disagree category, the highest percentage was 15%, while the lowest was 5%. In the strongly disagree category, the highest percentage was 5%, while the lowest

was 0%. Based on the overall findings, students who strongly agreed with the questions presented in Google Sites achieved the highest percentage of 65%, whereas students who did not like the questions in Google Sites accounted for 5%.

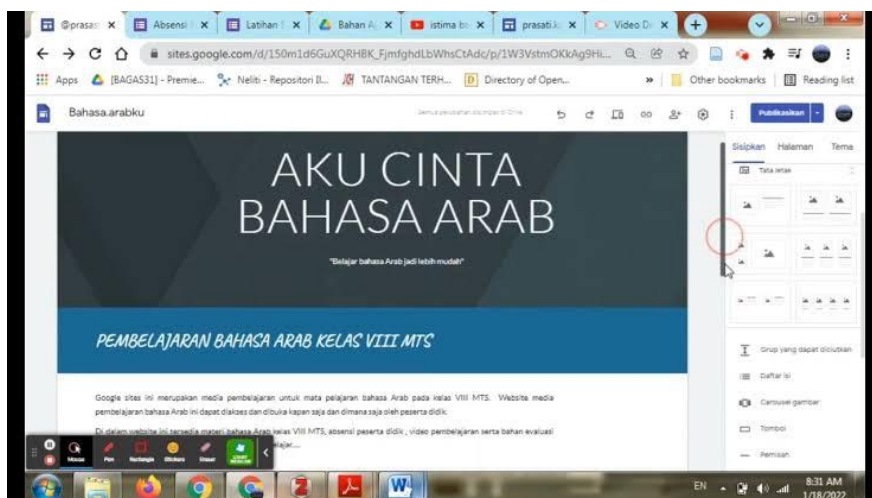


Figure 3. Website-Based Learning Media Using Google Sites

The figure above shows website-based media in the form of Google Sites. Google Sites takes the form of a design related to knowledge, particularly educational knowledge. This medium can be used anywhere through students' Android devices or laptops and can be carried easily. Google Sites is generally intended for school or university students. Its use strongly affects students, particularly those studying Arabic language education, Islamic religious education, and other fields. Google Sites makes it easier for students to access questions concerning lessons they have studied. Lecturers and teachers also benefit from Google Sites because they do not need to prepare test questions manually on paper; instead, they can type any questions to be tested on university or school students directly into Google Sites. This facilitates access to school learning. The characteristics of this learning medium include clearly presented and concise materials, clear objectives, clear instructions for using the tool, and a clear learning sequence. The use of Google Sites is currently highly necessary because students are more inclined to use the internet than to answer questions manually on paper. Android devices assist students, while Google Sites also supports teachers and lecturers.

The use of Google Sites has its own appeal for students. Its positive effect is that it makes learning easier to access and enables students to follow developments in the modern era. Students must therefore use Google Sites properly and responsibly so that they can make their parents and schools proud. Accessibility: Google Sites can be accessed from anywhere and at any time through the internet, allowing students to learn Arabic flexibly and independently. Multimedia content: Google Sites enables students to learn through various types of multimedia content, including video, audio, images, and text, which can increase their interest and clarify their understanding. Interactivity: Google Sites makes it possible to incorporate interactive elements into Arabic language learning, such as quizzes, exercises, and collaborative activities. These elements can increase student participation and help students practice their Arabic language skills. Ease of access and development: Google Sites is easy to use and access, allowing teachers to develop Arabic language-learning content easily and quickly. It can also be accessed by students easily and quickly. Collaboration: Google Sites enables collaboration between teachers and students, which can improve communication and interaction in Arabic language learning.

This study also shows that Google Sites facilitates independent learning. Google Sites can help students learn Arabic independently because they can study according to the speed of their thinking and their own learning styles. With these characteristics, Google Sites can

provide an attractive alternative for Arabic language learning, particularly by facilitating flexible, independent, and collaborative learning. Students can therefore obtain practical media with clear instructions and a clear learning sequence. The use of Google Sites is currently highly necessary because students are more inclined toward the internet than toward answering questions manually on paper. Android devices assist students, while Google Sites also supports teachers and lecturers. This can make Arabic language learning more attractive in Madrasah Tsanawiyah and other schools.

The result of this study concerns the use of Google Sites as website-based media in Arabic language learning. Google Sites is used to make it easier for students to test their mastery of lessons they have studied. It also helps teachers assess the extent to which students understand the material they have learned. Google Sites is highly suitable for students, particularly in Arabic language learning. Ease of use: many experts agree that Google Sites is a very easy-to-use platform. Its tools are intuitive and simple, enabling anyone to create a website quickly and easily. One issue related to Google Sites is limited customization control. Some experts criticize the limitations of Google Sites in terms of customization because users cannot freely modify its code, making it difficult to create a website that is highly tailored to users' needs and preferences. An unattractive name: several experts also argue that the name "Google Sites" is less appealing and does not provide a clear picture of what can be accomplished with the platform. The name may be less attractive to users seeking creative and innovative solutions for building websites.

This study also highlights integration with Google Suite. Many experts appreciate the integration of Google Sites with Google Suite, which allows users to incorporate Google Drive documents, Google Forms, and calendars into their websites and thereby improve collaboration and information sharing among team members. Suitability for small and simple projects: despite several criticisms of Google Sites, many experts agree that the platform is highly useful for small and simple projects. Google Sites can help inexperienced users build websites quickly and easily. Overall, Google Sites is considered a useful platform for small and simple projects because it provides easy-to-use tools and effective integration with Google Suite. Nevertheless, its limitations in customization control and the name of the platform are concerns for some experts. Even so, Google Sites remains a beneficial website-based learning medium that can prevent students from becoming bored during classroom learning.

This study identifies several limitations of Google Sites as a platform for Arabic language learning. Limited personalization: although it provides many design templates, it offers few options for detailed customization, such as changing colors and font sizes or adding animation effects. Limited interactive features: it allows users to add video, audio, and images, but offers few other interactive features, such as quizzes or polls, that could increase student participation. The absence of access-control features: it does not provide settings that limit access to certain pages to particular students, which may make it difficult for teachers to manage content intended only for selected students. Limited collaboration features: although several people can edit a page, there are few additional collaboration features, such as comments or notes, reducing students' ability to interact and provide feedback. The absence of student-performance tracking: Google Sites does not provide student-performance tracking features, making it difficult for teachers to assess students' progress in detail. Limited personalization also remains a concern because, despite the availability of many design templates, there are few options for detailed adjustment of the appearance, such as changing colors and font sizes or adding animation effects.

Limited interactive features: Google Sites allows the addition of video, audio, and images, but it provides few other interactive features, such as quizzes or polls, that could help increase student participation. Increasing students' interest: multimedia content such as video, audio, images, and text on Google Sites can increase students' interest in learning Arabic. Increasing student participation: interactive elements can be included in Arabic language

learning, such as quizzes, exercises, and collaborative activities. These can increase student participation and help students practice their Arabic language skills. Facilitating independent learning: Google Sites can help students learn Arabic independently because they can study according to their own pace and learning style. Improving Arabic language ability: multimedia content, interactivity, and independent learning can help students improve Arabic language skills, including speaking, listening, reading, and writing. Ease of access and development: Google Sites is easy to use and access, allowing teachers to develop Arabic language-learning content quickly and easily. Students can also access it easily and quickly. Saving time and costs: Arabic language learning through Google Sites can save time and costs because students can learn independently and flexibly without having to attend a learning location.

Facilitating collaboration: Google Sites enables collaboration between teachers and students, helping to improve communication and interaction in Arabic language learning. With these benefits, Google Sites can provide an attractive alternative for Arabic language learning, particularly by facilitating flexible, independent, and collaborative learning. As a source of information, Google Sites can provide students with information for learning Arabic, including the introduction of letters, vocabulary, grammar, and pronunciation. As a learning medium, Google Sites can serve as an effective and efficient medium that facilitates students' Arabic language learning. Teachers can present learning materials in multimedia and interactive forms and support independent learning through Google Sites. As an evaluation tool, Google Sites can be used to present tests, quizzes, and practice questions in Arabic language learning, and evaluation results can also be provided directly through the site. As a collaboration tool, Google Sites enables collaboration between teachers and students in Arabic language learning. Teachers can facilitate discussions, question-and-answer activities, and other collaborative activities through Google Sites.

The purpose of this study was to facilitate the learning process for educators and students. Most schools have begun using website-based media, although a small number still use manual methods to assess students' abilities. Schools that do not use Google Sites in Arabic language learning are generally located in remote areas that have not yet been reached by advanced and modern technological facilities, whereas schools that use the application are generally located in areas with developed modern technology. The government is therefore expected to provide modern facilities for schools that have not yet implemented Google Sites as website-based media. The researchers hope that future researchers will assist schools that are not yet able to use website-based media so that learning can become more attractive and the media can be used easily in accordance with current developments.

CONCLUSION

Based on the discussion above, it can be concluded that website-based learning media can serve as a reference for students and can facilitate educators and students in assessing learning through the tests available in Google Sites. The study involved 30 students, and the graph presents the percentages of students who agreed, strongly agreed, disagreed, and strongly disagreed with the use of Google Sites as website-based media in Arabic language learning. The table contains statements concerning the questions tested with students. Based on the research findings, website-based learning media were categorized as highly feasible for use as learning media that can help students understand learning materials and can increase their reading interest and learning motivation during Arabic language learning at Madrasah Tsanawiyah.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) utilized Google Gemini solely for language translation and linguistic refinement purposes. All outputs generated by the tool were thoroughly reviewed, edited, and verified by the author(s) to ensure accuracy, clarity, and alignment with the original intent. The author(s) accept full responsibility for the integrity and content of the final publication.

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AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

Author 4: Formal analysis; Methodology; Writing - original draft.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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