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Education Transformation: Innovation of Islamic Learning and Ethics Website for State High School 5 Luwu, South Sulawesi

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Abstract. This study aims to identify the need for the development of learning tools at State High School 5 Luwu, especially in the context of Islamic Religious Education, to support learning outside the school environment. Through interviews and observations with teachers, the study highlighted the limitations of teaching media and demonstrated solutions by developing responsive learning tools. The findings emphasize the importance of evaluation and monitoring in learning outside of formal class hours, providing a basis for the development of dynamic and interactive learning solutions. The subject-focused website interface design proves its effectiveness in overcoming student boredom. Black box testing showed positive performance, supporting the website's potential to improve the student learning experience at State High School 5 Luwu.

Keywords: Education Transformation, Learning Website

1. Introduction

With the rapid development of technology in the world of education, the challenge of creating breakthroughs is increasingly real (Budiharto et al., 2019). Learning applications are the leading solution to make it easier for students to understand the material, both in the school environment and outside the school (Buulolo et al., 2020). The use of this technology not only improves the quality of education but also updates the overall learning method (Siregar & Marpaung, 2020).

The importance of using learning media as a central component in Teaching and Learning Activities is the main highlight (Mardhiyah et al., 2021). A teacher or facilitator needs to understand how to set learning media to achieve effectiveness in the teaching and learning process (Hasriadi & Nurul, 2023). One significant form of learning media is a website, which is a collection of web pages with supporting files, such as images, videos, and other digital files, stored on a web server that can be accessed via the Internet (Hasriadi, 2022).

There are problems in learning Islamic Religious Education related to the use of ineffective methods and media. Data shows that applied learning methods, such as lectures, questions and answers, memorization, exercises, and assignments, do not have an optimal impact on student learning outcomes (Botutis, 2022; Pinem, 2019). The use of monotonous methods tends to make students feel bored, thus creating challenges in achieving learning goals to the maximum (Tanjung & Namora, 2022).

According to (Murtado et al., 2023), The limited variety of learning media used, especially in the context of Islamic Religious Education subjects, is also a significant factor causing this problem. In this condition, students face difficulties in undergoing an exciting and meaningful learning

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process. This fact reflects the common challenges faced in the context of learning Islamic Religious Education in various schools.

Understanding these problems is essential in finding appropriate solutions to improve learning effectiveness, thus creating a more meaningful learning environment for students (Astuti, 2019). The allocation of learning hours creates problems where teachers are required to deliver material in a short time (Izzah et al., 2022). That causes not all material to be remembered and understood by students. Homework outside of class hours is expected to help students relearn, but limited student memory and school policies that no longer sell textbooks add complexity to the problem (Rusandi et al., 2022).

This problem is also manifested in State High School 5 Luwu. The results of observations during teaching and learning activities, especially in Islamic subjects, show that there are limitations in the use of learning media. This situation has implications for the tendency of teacher-centered learning, where students record more of the material presented. As a result, students' understanding of Islamic learning materials has decreased in quality significantly.

It is necessary to construct a website as an educational resource for Islamic religious education in order to address these issues. The material that will be included in the learning media will be adjusted to the Basic Competencies (KD) in Islamic Religious Education subjects at the senior high school level, with the aim of presenting the material well and interestingly for students.

Various previous studies have shown that the use of websites as learning media can have a positive impact on student learning outcomes, especially in the context of Islamic Religious Education subjects. Research by (Parma et al., 2023) shows that the use of websites in religious learning can improve the understanding of religious concepts and morality among students. The results of this study indicate that websites provide broader access to learning resources that support the achievement of spiritual education goals.

Other research conducted by (Sign and Mail, 2022) states that the website as a learning medium can motivate students to learn more actively and independently. Interactive features, such as discussion forums and online quizzes, provide opportunities for students to participate directly in the learning process. In line with these findings, research conducted by (Nicolaou et al., 2019) Highlights that variations in the format of learning materials on the website, such as the use of images, audio, and video, can increase student attraction to the material. That positively affects the level of students' understanding of the religious concepts taught. By utilizing these features, the website becomes an effective instrument to present learning materials more attractively and efficiently.

In addition, research conducted by (Ratner et al., 2019) Found that websites as learning media can help teachers monitor and evaluate student learning progress more accurately. With the online platform, teachers can provide feedback directly to students, allowing customization of learning materials according to individual needs. These findings reflect that websites not only benefit students but also facilitate the teaching and evaluation process by teachers.

To overcome the findings of the above problem, researchers are interested in developing a more exciting learning media. This study aims to provide solutions to the issues identified, namely the limitations of learning methods and media that can affect students' understanding of Islamic Religious Education material.

2. Method

This research is development research that adapts the Four-D model, namely Defining, Designing, and developing. The Four-D model is a systematic approach consisting of four stages,

starting from definition, design, development, and dissemination (Sofirudin et al., 2022). The research was conducted at State High School 5 Luwu involving Islamic Religious Education teachers and 32 grade X students in the 2023 school year.

The data collection process is carried out through analysis activities, validation tests, practicality tests, and effectiveness tests. The research instrument involves analysis sheets, validation sheets, and practicality questionnaires. Website feasibility analysis is carried out by testing using a black box model (Andrian, 2021).

3. Result

Define

Researchers conducted interviews with teachers at State High School Negeri 5 Luwu and conducted direct observations to obtain information related to the use of learning media, especially in the context of Islamic Religious Education learning. The results of interviews and observations show that in these schools, there is still a need for learning tools that can support the learning process outside the school environment, which students can access at any time. Furthermore, it was found that the desired learning media should have evaluation and monitoring features that allow monitoring of student learning progress. These findings indicate an opportunity to develop learning solutions that are more dynamic and support learner accessibility outside of formal class hours.

Design

The website design to be developed will follow the pattern as seen in the following image.

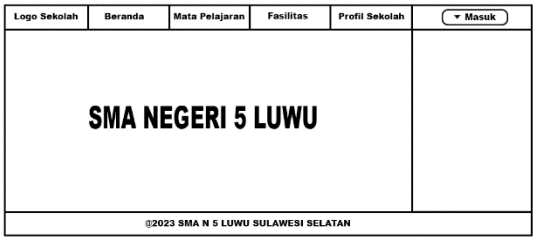


Figure 1. Home Menu Design Display

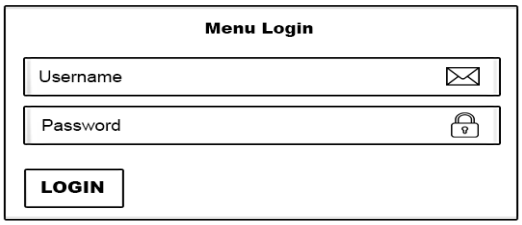


Figure 2. Login Menu Design Display



Figure 3. Design Display of the Control Account Menu

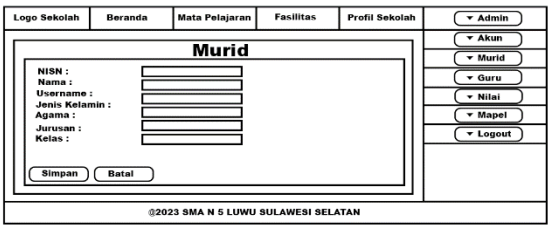


Figure 4. Student Menu Design View

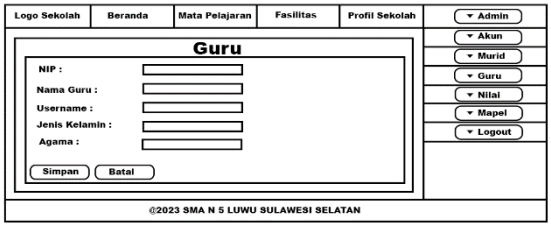


Figure 5. Teacher Menu Design Display



Figure 6. Value Menu Design View

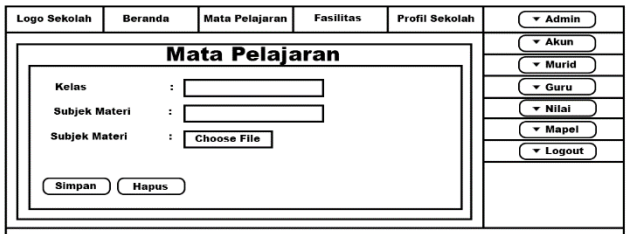


Figure 7. Subject Menu Design Display

Development

The website design that has been developed can be seen through the following image display.



Figure 8. Home Menu Display

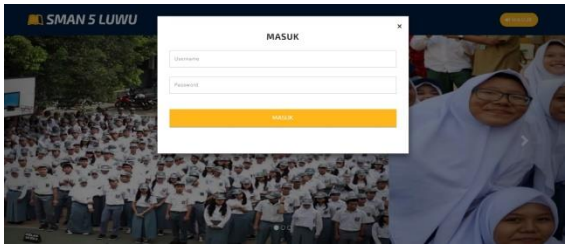


Figure 9. Login Menu Design Display

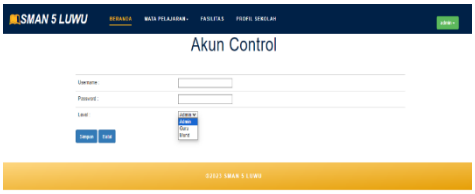


Figure 10. Control Account Menu Display



Figure 11. Student Menu Display



Figure 12. Teacher Menu Display

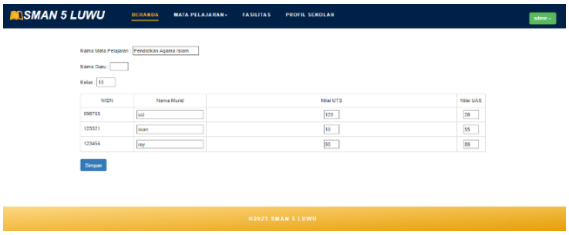


Figure 13. Value Menu Display



Figure 14. Subject Menu Display

This testing is done simply by observing the execution results through the test data and checking the functionality of the software. The following is a black box test on the Development of Islamic Education Learning Media Website at State High School 5 Luwu, South Sulawesi.

Table 1. Login Menu Testing

Test Results Cases			
Input data	What to expect	Observation	Conclusion
Enter username*:* *admin* and password: *admin*	*admin* is listed in the user name text, and the password is listed in the password text	*admin* is listed in the username text, and **** is listed in the password text	Accepted
Click Login	Can be redirected to the main admin page	Successfully redirected to admin page	Accepted

Table 2. Test the Control Account Menu

Test Results Cases			
Input data	What to expect	Observation	Conclusion
Click the account menu.	Can be redirected to the account data sub-menu	Redirected to account data sub-menu	Accepted
Edit your account data and click the save button	Can modify account data and save changes to organization data	Successfully changed account data and saved account data changes	Accepted

Table 3. Student Menu Testing

Test Results Cases			
Input data	What to expect	Observation	Conclusion
Click the student menu.	It can be switched to the student data sub-menu	Redirected to student data sub menu	Accepted
Click the add button.	Can be redirected to add student data page	Redirected to add student data page	Accepted
Input student data and click the save button	Can input and store student data	Successfully input student data and save	Accepted
Click the edit button.	Can redirect student data edit page	Successfully redirected to student data edit page	Accepted
Edit student data and click the save button	Can change student data and save student data changes	Successfully change student data and protect student data changes	Accepted
Click the delete button.	Can delete student data	Successfully deleted data	Accepted

Table 4. Teacher Menu Testing

Test Results Cases			
Input data	What to expect	Observation	Conclusion

Click the teacher menu.	Can be redirected to the teacher data sub menu	Redirected to teacher data sub menu	Accepted
Click the add button.	That can be redirected to the add teacher data page	Redirected to add teacher data page	Accepted
Input teacher data and click the save button	Can input and store teacher data	Successfully input teacher data and save	Accepted
Click the edit button.	Can redirect teacher data edit page	Successfully redirected to the edit teacher data page	Accepted
Edit teacher data and click the save button	Can change donor data and save changes to teacher data	Successfully change teacher data and save teacher data changes	Accepted
Click the delete button.	Can delete teacher data	Successfully deleted teacher data	Accepted

Table 5. Value menu testing

Test Results Cases			
Input data	What to expect	Observation	Conclusion
Click the add button.	Can be redirected to the add value page	Redirected to add value page	Accepted
Input the value data and click the save button	Can input and store values	Successfully input values and save	Accepted
Click the edit button.	Can redirect value edit page	Successfully redirected to value edit page	Accepted
Edit the value and click the save button.	Can change cash income data and save value changes	Successfully change value and save value data changes	Accepted
Click the delete button.	Can delete values	Successfully clear value	Accepted

Table 6. Subject Menu Testing

Test Results Cases			
Input data	What to expect	Observation	Conclusion
Click the add button.	Can be redirected to the add subject page	Redirected to add subject page	Accepted
Input subject data and click the save button	Can input and save subjects	Successfully input subjects and save	Accepted
Click the edit button.	Can redirect subject edit pages	Successfully redirected to subject edit page	Accepted

Edit a subject and click the save button.	Can change subject data and save subject changes	Successfully change subjects and save data changes	Accepted
Click the delete button.	Can delete subjects	Successfully deleted a subject	Accepted

Table 7. Facility Menu Testing

Test Results Cases			
Input data	What to expect	Observation	Conclusion
Click the add button.	Can be redirected to the Add Resources page	Redirected to add resources page	Accepted
Input facility data and click the save button	Can input and store facilities	Successfully input facilities and save	Accepted
Click the edit button.	Can redirect resource edit pages	Successfully redirected to resource edit page	Accepted
Edit the resource and click the save button.	Can change resource data and save resource changes	Successfully change resources and save resource data changes	Accepted
Click the delete button.	Can delete resources	Successfully delete a resource	Accepted

4. Discussion

Define

The results showed that through interviews and observations with teachers at State High School 5 Luwu, the need for the development of learning tools that can provide additional support for the learning process outside the school environment was identified. The teachers indicated that the limitations in the current learning media, especially in Islamic Religious Education learning, require solutions that can enrich the learning experience of students.

This finding is in line with several studies showing that the use of interactive learning media and supporting flexible access can improve the quality of learning. Research results (Adam, 2023) indicate that the integration of technology in religious education can have a positive impact on students' motivation and understanding of teaching materials. These findings support the concept that the development of learning tools that are responsive to student needs can contribute significantly to the effectiveness of the learning process.

The main findings of this study highlight the importance of evaluation and monitoring in learning media. Students need better accessibility to their learning progress outside of formal class hours. That is in line with research (Agung & Sopiansyah, 2022), which shows that evaluation and monitoring features in online learning media can increase student learning independence. By combining these findings, the study provides a solid foundation for developing learning solutions

that are dynamic and interactive and support student learning development beyond traditional classroom contexts.

Design

The results of this study reflect the appearance of menu design on website design, as shown in Figures 1 to 7. Each part of the interface is designed to provide a focused and structured user experience. Researchers managed to create a website interface focused on the subject of Islamic Religious Education. The design of this menu aims to provide a more structured and accessible learning experience for students.

According to research (Suanah, 2019), good interface design can improve students' understanding of learning materials. By focusing on menu design, this study supports this theory by creating interfaces that facilitate navigation and accessibility to Islamic Religious Education materials.

The findings of the research show that the development of display menus can make a positive contribution to the learning experience of learners. The results of interviews and observations show that subject-focused interface design helps minimize student boredom, which in turn can improve the achievement of learning objectives. These findings are in line with research (Rahmatika et al., 2020), which shows that attractive interface design can increase student motivation in learning.

Development

The results of black box testing on the development of Islamic Religious Education learning media websites at State High School 5 Luwu, South Sulawesi, showed positive performance in various menus, such as Login Menu, Control Account Menu, Student Menu, Teacher Menu, Value Menu, Subject Menu, and Facility Menu. On the Login Menu, testing shows that the login process was successful, and the user can be redirected to the main admin page, as expected. The Account Control menu is also thriving, with the ability to access account data sub-menus, edit account data, and save changes properly.

The Student Menu and Teacher Menu performed positively in tests, including access to data sub-menus, adding data, editing data, and deleting data. The results indicate that the website can manage student and teacher data well. Tests on the Grade Menu and Subject Menu demonstrated good functionality, including adding data, editing data, and deleting data in the Grade Menu, as well as adding data, editing data, and deleting data in the Subject Menu.

These test results reflect the application of sound interface design principles, such as functionality, navigability, and clarity of information. The findings of this study support that the website developed has the potential to improve the learning experience of students and meet user needs in accordance with the development objectives. The functional success of each menu on this website contributes positively to the effectiveness of Islamic Education learning media at State High School 5 Luwu, South Sulawesi.

5. Conclusion

This study aims to identify the need for the development of learning tools at State High School 5 Luwu, especially Islamic Religious Education, to support learning outside of school. The results show that teachers indicate limitations in learning media that require solutions to enrich students' learning experiences. Research findings highlight that the use of interactive learning media and flexible access can improve the quality of learning. Evaluation and monitoring in learning media show that these features can increase student learning independence.

Development of learning that is responsive, dynamic, and supports student learning development beyond the traditional classroom. The focus on website interface design is expected to provide a more structured and accessible learning experience. The implementation of sound interface design principles can increase the effectiveness of Islamic Religious Education learning media at State High School 5 Luwu. The results of black box testing show positive performance on various menus, showing that the website developed has the potential to improve the student learning experience and meet user needs.

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