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Development of interactive learning media based on websites for the textile science course

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ABSTRACT

The development of science and technology changes the learning process from several aspects, including textile science courses. This research aims to develop interactive learning media in textile science courses. This research was conducted using the RnD approach by adapting the ADDIE model. The subjects of this study consisted of material validators, media validators, and 31 students of the Family Welfare Education Department. Data collection used interviews, needs identification questionnaires, material and design validation questionnaires, small group trials, pretests, and posttests. Data analysis techniques were carried out descriptively and qualitatively for interview results and quantitatively for questionnaire results. The results of this study found that the identification of student needs reached a score of 60 percent. Interactive learning media development design is designed using Canva, Google Drive, and Google Sites, which can be integrated using a laptop device. The level of validity of Interactive Learning Media material is 4.5 and media 4.7 at the valid qualification stage. The level of practicality obtained from the pre-test and post-test results reached 93 percent. It can be concluded that the learning media that have been developed are very effective.

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ABSTRAK

Perkembangan ilmu pengetahuan dan teknologi memberikan perubahan dalam proses pembelajaran dari beberapa aspek, termasuk pada mata kuliah ilmu pengetahuan tekstil. Penelitian ini bertujuan untuk mengembangkan media pembelajaran interaktif pada mata kuliah ilmu pengetahuan tekstil. Penelitian ini dilakukan menggunakan pendekatan RnD dengan mengadaptasi model ADDIE. Subjek penelitian ini terdiri dari validator materi, validator media, dan mahasiswa Jurusan Pendidikan Kesejahteraan Keluarga berjumlah 31 orang. Pengumpulan data menggunakan wawancara, angket identifikasi kebutuhan, angket validasi materi dan desain, uji coba kelompok kecil, pretest, dan posttest. Teknik analisis data dilakukan secara deskriptif kualitatif untuk hasil wawancara dan kuantitatif untuk hasil angket. Hasil penelitian ini menemukan identifikasi kebutuhan mahasiswa mencapai skor 60 persen. Desain pengembangan media pembelajaran Interaktif dirancang menggunakan Canva, Google Drive, Google Site yang dapat diintegrasikan menggunakan perangkat laptop. Tingkat kevalidan Media Pembelajaran Interaktif materi yaitu 4,5 dan media 4,7 pada tahap kualifikasi valid. Hasil tingkat kepraktisan yang diperoleh dari berdasarkan hasil pre-test dan post-test mencapai 93 persen. Dapat disimpulkan bahwa media pembelajaran yang telah dikembangkan sangat efektif.

Kata Kunci: *ADDIE Model; ilmu pengetahuan tekstil; pembelajaran interaktif; pengembangan media*

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INTRODUCTION

The development of the 21st century, marked by advances in digital technology such as computer and internet technologies—both hardware and software—has provided numerous opportunities and choices in human life, even bringing positive impacts for progress across various sectors. This phenomenon is often called the gateway to the beginning of the Industrial Era 4.0. It uniquely challenges human life (Fathurohman et al., 2023). On the other hand, this condition has also transformed education worldwide, particularly in Indonesia, as the demands of the times grow increasingly competitive in various needs such as graduate competencies, technological and informational skills, and requirements in various industrial fields. This situation presents a new challenge for educational institutions to prepare graduates with the competencies needed to compete in the era of the Industrial Revolution 4.0 (Afuw & Mappeasse, 2023). The use of media is rarely incorporated into the learning process. This can be observed in lecturers' infrequent use of interactive learning media during teaching, resulting in classroom instruction still relying on methods such as lectures, question-and-answer sessions, and student assignments (Lasmawan & Kertih, 2025). Lecturers often only use pre-existing learning materials, which are then converted into PowerPoint presentations for group presentations, and deliver lessons through traditional classroom learning. Such conditions make students bored during the learning process, reducing their motivation to learn (Handayani et al., 2021). Occasionally, students fail to respond to what the lecturer is delivering (Ihlashi et al., 2020; Umalia & Ratnasari, 2024).

This less-than-ideal learning condition affects students and inevitably impacts their academic performance and achievements. Therefore, this research aims to develop an interactive learning medium. Learning media itself refers to anything, whether physical or technical, used in the learning process to assist educators in delivering material more effectively to students, ultimately facilitating the achievement of learning objectives (Saputra et al., 2022). The interactive multimedia learning medium based on a website was developed using Google Sites to address the aforementioned issues (Hasna et al., 2021). The teaching of textile science is significantly different from textile instruction in other departments. From a curricular perspective, its function is to support the teaching of compulsory courses and serve as a tool for solving technical problems in course materials both during education and after entering the workforce. Improving the quality of textile education enhances students' textile skills and indirectly contributes to achieving learning outcomes in other courses. Therefore, textile science lecturers are expected to create innovative and interactive learning environments that can foster students' motivation to learn. Regarding the media used, the researcher employs an existing website and seeks to develop it further. The selected medium is Google Sites.

The Textile Science course is a compulsory subject. Until now, this course has been delivered to students as a 3-credit theoretical course complemented by practical activities. However, the competencies taught in the Textile Science course are essential for students today, as they equip them with the ability to develop their potential as a foundation for self-reliance and broad insight. This serves as a starting point for fostering innovation and new ideas in response to the ever-changing developments in textiles that align with the progression of time. Previous research states that the use of interactive learning media is effective for improving students' abilities and assisting in the delivery of material (Adnan & Istiqomah, 2022; Janul, 2024; Putra & Salsabila, 2021; Ridwan et al., 2021). Interactive multimedia is utilized to develop textile fiber materials that can be used as learning media. This study is relevant because it develops Android-based interactive learning multimedia on textile materials for school subjects to help students in the learning process. Thus, all existing research aims to facilitate the learning process through technology in textile education. This study aims to measure the level of need for Website-Based Interactive Learning Media Development, design Website-Based Interactive Learning Media Development, and determine the validity, practicality, and effectiveness of implementing Website-Based Interactive Learning Media.

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LITERATURE REVIEW

Development in Educational Technology

Learning media play an important role in creating conducive conditions in the classroom. Teaching media can facilitate students' learning process in teaching, so it is expected to increase the learning outcomes (Furoidah, 2020). Over time, learning media that can be applied in learning are very diverse, both online and offline. It takes special expertise and adequate materials from teachers to create diverse and interesting media (Nurkamilah et al., 2020). The role of learning media is grouped into two. Firstly, the media is used as an instructional aid. Usually, the media is used to help lecturers present concepts. Second, the media is used in the learning system. Media is used to facilitate students' peculiarities in learning. In addition, technology-based media can improve the efficiency and effectiveness of classroom learning. Technology-based media can make learning diverse communication methods, and has a high appeal. In addition, technology-based media can determine the achievement of educational goals (Emilia et al., 2023; Hadi, 2022).

Interactive Media Learning

Learning is a process carried out by individuals with the help of teachers to obtain behavioural changes towards complete self-maturation as a result of individual interaction with the environment. Learning requires students to understand the concepts of a learning material (Dhani et al., 2022; Rosyiddin et al., 2023). The learning process at school is an activity that needs to be carefully planned. The planning includes teaching and learning activities; classroom management can use the school infrastructure, such as learning media. All teaching and learning activities can occur when a teacher has prepared all the teaching materials. The development of science and technology has increasingly encouraged renewed efforts to utilise technology in the learning process. Science and technology have developed very rapidly within the community. This can lead to an increase in the utilisation of technological results from various aspects, including in the world of education, especially learning in Textile Science courses (Maslov et al., 2021).

Learning in the textile science course is directed at increasing student understanding and skills in analysing textiles, identifying types, and understanding textile development that occurs in the surrounding environment, with the concept of textile material that has been owned. One of the efforts to improve students' analytical skills is by using engaging and interactive media, which can help students understand the concept of the material and help students connect the concepts they already have with the real world. Interactive learning media is an intermediary whose role is to support the success of an ongoing learning process (Widhiasti et al., 2022). Students can be more focused on learning and application with learning multimedia so that it can provide a clearer picture of the material (Alifah et al., 2023). Meanwhile, a website is an information space containing a collection of internet resources that can be accessed with a particular browser. Web-based learning can be interpreted as learning accessed through the internet. In other words, web-based learning is the application of website technology in the learning process. Web-based learning offers students good information access speed (Zega et al., 2022).

Web-Based Learning

Web-based learning offers several advantages: speed, unlimited space, and time to access information. Learning strategies using e-learning are part of the effort to use technological advances to improve learning quality (Firmansyah et al., 2023). Rapid technological advances have influenced changes in the world of education and learning, and learning technology has adopted these cutting-edge findings in the learning

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process. E-Learning provides a very effective experience in learning. By using web-based learning media, students can continue to learn anywhere, and by continuing to learn, students can improve their learning outcomes (Ghifari et al., 2022; Rohma et al., 2022). A simple and easy way to build web-based learning media for educators is to utilise Google Sites (Suryana et al, 2023). Learning using online media is an alternative so that the learning process can run well, bring up learning interactions, and students can accept modern technology. The advantage of Google Sites is that it is easy to access the information you need quickly, with attachments and other Google information, such as Google Docs, Sheets, Calendar, Awesome Tables, and videos from YouTube, according to user needs (Firmansyah et al., 2023).

Textile Science

Textile Science is one of the compulsory courses taught in Higher Education in the Family Welfare Education Study Programme, especially the Fashion Concentration. Textile Science is one of the courses taught to students about the world of textiles, the development of textiles in each era, and how to process the textiles themselves. Students are expected to achieve learning objectives by learning Textile Science according to the expected graduate competency standards. Textile Science studies various aspects of textiles, including the production, design, development, application, and use of textile products. The field includes researching fibres, yarns, fabrics, and other textile products. Textile science involves understanding the physical, chemical, and mechanical properties of textile materials, as well as the associated production processes and technologies. Textiles are materials derived from fibres that are processed into yarn or fabric as materials for making clothing and various other handicraft products (Novarini & Sukardan, 2015).

Textile science itself is a field of science that studies the characteristics of fabrics, recognises textile materials, types of fabrics, weaving processes and so on, therefore the role of textiles is significant in education and non-education. Textile science is a branch of science that has an important role in developing science and technology, be it in the application of other scientific fields or in the development of textile science itself. Textile science is a field that is difficult for students to understand quickly, extra understanding is needed for students to understand each textile science material learned. From the definition of textiles, it can be concluded that textile materials/products include fibre products, yarn, fabrics, clothing, and various objects made from fibre. Textile knowledge is one of the knowledge that is needed by consumers, traders, and textile producers (Novarini & Sukardan, 2015).

Google Site

Google Sites is a website-based learning medium designed to serve as a teaching platform for educators and can be developed using Google's tools. The term "media" originates from the word "medium," which means an intermedium (Rosita & Hardini, 2022). Google Sites is software designed to manage, deliver, and track learning or training programs within an organization or educational institution. It is a product by Google that functions as a tool for creating websites, where educators can utilize it to create and manage interactive and digital learning media easily. Google Sites offers various features supporting educational and human resource development. The advancement of learning media aligns with the development of science and technology, significantly assisting lecturers in their roles and classroom learning processes. Google Sites provides several content features for creating, organizing, and presenting learning materials in a structured manner (Prayudi & Anggriani, 2022; Yuniar et al., 2021).

Google Sites is free of charge and can be utilised by all users with a Google account. In addition, web-based sites are easy for beginners because they can be accessed for free and do not require programming languages (Kamilah et al., 2023). Researchers use the web developed by Google. Google Sites is a practical way of learning because it provides learning information quickly and can be accessed anywhere and

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anytime. Google Sites can provide effectiveness in the learning process and also at the same time introduce students to the technological developments that exist today, because it provides convenience in the learning process (Wahyudi et al., 2023). Besides the ease of operating this website, Google Sites also provides a capacity of 100 MB for free, so it is very suitable to be used as a learning medium. The role of learning media is significant for lecturers to support the learning process and increase students' interest in learning (Firmansyah et al., 2023).

METHODS

This model was chosen because it can be developed systematically and is based on the theoretical foundation of learning design. The ADDIE model is also simple and easy to learn because it is one of the systematic learning design models and has five stages that are easy to understand, so that it will facilitate the process of developing a website product using Google Sites (Dewi et al., 2024). In addition, this development model is considered sequential, where the results at each stage can build on previous learning. Based on the explanation above, the textile science course strongly supports the development and implementation of effective and structured learning media where each stage in ADDIE can be connected to the development of website-based media for the textile science course:

1. **Analysis:** Identify learning needs such as understanding natural fibers, fabric refinement, and care.
2. **Design:** Topic-based learning and determine design elements to use, such as videos and gamification quizzes that support learning.
3. **Development:** Developing appropriate learning content, such as silkworm process videos and fabric burning tests.
4. **Implementation:** Students can operate Website-based learning media to learn independently or in groups. The implementation of the media has also undergone trials to ensure ease of use and effectiveness.
5. **Evaluation:** Lecturers can evaluate student learning outcomes such as conceptual understanding and analytical skills. I also conducted data-based evaluations and website improvements.

Analysis Data

This analysis technique is used to process data obtained through questionnaires in the form of descriptive percentages. The formula used to calculate the percentage of each subject is.

$$\text{Percentage} = \frac{\sum(\text{Answer x weight of each choice})}{\text{n x highest weight}} \; x \; 100$$

Description:
∑ = Total
n = Total number of questionnaire items

Next, the formula is used to calculate the percentage of all subjects.

$$\text{Percentage} = \frac{F}{N} \; x \; 100\%$$

Description:
F = Total percentage of objects
N = Number of subjects

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The data obtained are then categorized into very effective (81%-100%), effective (61%-80%), quite effective (41%-60%), less effective (21%-40%), and significantly less effective (0%-20%). Meanwhile, qualitative data obtained through interviews uses descriptive data analysis to get precise analysis results.

RESULTS AND DISCUSSION

The results of this study describe the process carried out in developing website-based interactive learning media products in textile science.

Analysis Website-based Interactive Learning Media Development Needs

Based on the results of interviews with Textile Science Lecturers in September 2024, it is stated that the current learning references given to students are in the form of PowerPoint slides as a lecturer guide. Learning activities carried out so far are lecturers providing textile material in the form of several significant points on subtitles, and students are required to find complete material on the subtitles that have been given, by dividing several students into groups and presenting the material so that the learning process will be less effective. Based on the analysis that has been described, learning media is needed that supports the learning process in the Textile Science Course, which aims to assist lecturers and students in the learning process in the Textile Science Course for 3rd-semester students. Thus, a website-based interactive learning media that can overcome existing problems, where the website-based interactive learning media chosen can help lecturers and students in teaching and learning activities on campus and learning independently at home. Analysis of student needs is carried out by providing a questionnaire to identify student needs and determine whether the interactive learning media to be developed are needed in the learning process.

Based on the results of the questionnaire to identify student needs in website-based interactive learning media development products with 10 points available, it can be concluded that overall with the total score of results on the yes option, namely 186 with a presentation result of 60%, the total score of results on the sometimes option is 106 with a presentation result of 34.30%, the total score of results on the no option is 17 with a presentation result of 5.50%. Based on the analysis of student needs, it is concluded that lecturers and students consider it important to develop website-based interactive learning media products as references and teaching materials that support the learning process in textile science subjects in class, following the available RPS Syllabus. In the material analysis data collection stage, a literature study analysis is conducted to collect materials related to the learning objectives to be implemented. Researchers discussed with lecturers from the textile science Course to formulate learning objectives and what material would be developed through website-based interactive learning media.

Learning Media Development Design in Textile Science Course

In this section, researchers will answer the formulation of the second problem, namely ‘How is the design of website-based interactive learning media development in textile science courses.. At this stage is a design or design where the researcher starts designing the design of Website-Based Interactive Learning Media to be developed either by preparing a website using Google Site, systematically determining material based on RPS, creating prototypes, storyboards, designing assets in the form of navigation, images, audio, designing evaluations that will be developed in Website-Based Interactive Learning Media.

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1. Prototype Making

The prototype is an initial design of a product or design made to test and evaluate concepts before production. Website-based learning media in textile science courses are developed based on needs analysis. The development of website-based interactive learning media allows students to use it as an interesting and relevant learning resource, and it is easy to access anywhere and anytime.

Table 1. Prototype of Website-Based Interactive Learning Media in Textile Science Course

No.	Components	Description
1.	Specifications	This Web-based Interactive Learning Media uses the Google Sites website.
2.	Design / Template	The initial stage is to create templates and content using the Canva application.
3.	Content / Material Design	The material is first made in Canva and then exported to PDF. Furthermore, the material is uploaded to Google Drive as an initial storage of material before being entered into the website that has been created. After that, it is inputted back to the website by adding material on the material page and how to insert videos on the website from the Google site. After the process of inputting content (material, videos, etc.), it is then saved to save the material that has been entered and open public access so that the website that has been created can be accessed using a smartphone or laptop.
4.	Visual Design	Visual design using Canva and YouTube
5.	Body Frame	Consists of Home (homepage), Objectives, Materials, Videos, and Assessments. Equipped with navigation 'Return to Home', 'continue' to the next page, and 'back' to the previous page.
6.	Content	Consists of 4 materials discussed in this Website-Based Interactive Learning Media: Natural Textile Fibres, 50% Synthetic Fibres, 100% Synthetic Fibres, Textile Refinement Techniques, and Textile Maintenance.

Source: The data was obtained from the website developed by the author.

Table 1 shows that prototyping aims to help researchers minimize time in designing website-based interactive learning media.

2. Storyboarding

After the prototype has been designed, it is used as a basis for making a storyboard. Storyboard contains a sketch image that developers use as a tool or planning sketch instructions to visually show how the development product is arranged according to the concept, which is equipped with materials. The developed website-based interactive learning media storyboard outlines several display functions (sketches) in the form of tables starting from the cover, main menu, navigation accompanied by icons from home, objectives, materials, videos, assessments, the latest information about textiles, and colours that will trend.

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3. Material Creation

The next step is to design web-based learning media using the Canva application. The design is based on the prototype and storyboard created previously. This process utilises the creative skills and design tools available in Canva to create layouts, graphics, and other visual elements that match your prototype and storyboard concepts. In addition, the design is adjusted to the needs of the applied preferences. It pays attention to design principles that make the appearance of interactive web-based learning media easier to understand and attractive. By referring to the prototype and storyboard as guidelines, the design of interactive web-based learning media becomes the basis for further implementation, ensuring the final result follows the expectations and objectives. The following are some of the displays created using Canva.

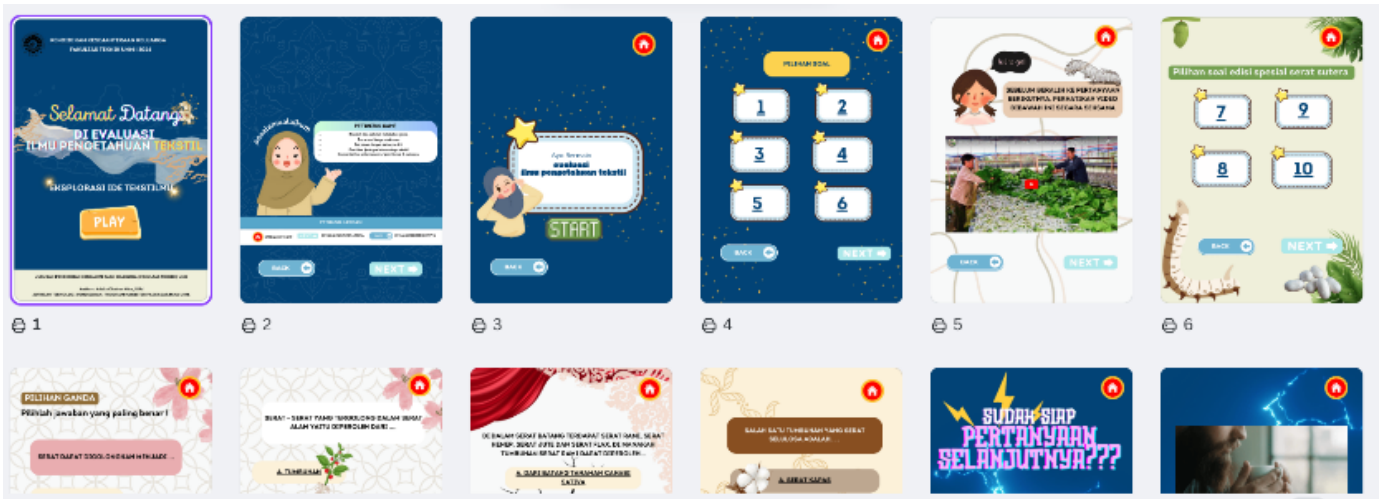

Figure 1. Design of Interactive Learning Media
Source: Author's Documentation 2024

Figure 1 shows a gamification-based evaluation assessment display on an interactive learning media website created using the Canva application.

Development of Learning Media in the Textile Science Course

The results of the development phase in this study were used to produce a product that has been tested for validity.

1. Validation of Content by Subject Matter Expert

The content developed for the website-based interactive learning media underwent review and evaluation by a subject matter expert, Dr. Hamidah Suriyani, M.Pd., a lecturer with expertise in fashion design. The following are the results of her assessment of the development of website-based interactive learning media for the textile science course, aimed at improving the learning outcomes of third-semester students. Based on the evaluation by the subject matter expert validator in the learning aspect, an average score of 4.71 was obtained. Referring to the validity category, this score indicates that the aspect falls into the **very valid** category. The explanation above demonstrates that the website-based interactive learning media for the textile science course developed by the researcher is feasible for trial implementation in this study. In addition to completing the questionnaire, the subject matter expert validator also provided feedback and suggestions for improving the developed product to achieve a better outcome.

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2. Validation by Media and Design Expert

The evaluation of the media and design of the website-based interactive learning media was conducted by Dr. Farida Febriati, S.S., M.Si., a lecturer in Educational Technology with expertise in learning media. The media and design expert validation aims to ensure that visual aspects, presentation, user interaction, and elements such as navigation and menu positioning align with design standards and meet student needs, thereby enhancing the appeal and effectiveness of the website-based interactive learning media product.

Table 2. Validation Results by Media and Design Expert

No.	Criteria	Score
Media Aspects		
1.	Accuracy of illustrations used on the cover (thumbnail) of the website-based learning media	4
2.	Appropriateness of the color scheme in the learning media	5
3.	Quality of images used	5
4.	Accuracy of image size	4
5.	Accuracy of image placement	5
6.	Text quality	5
7.	Image quality	5
8.	Lighting quality	5
9.	Video identity	4
10.	Quality of the text used in the video	5
11.	Accuracy of presenter placement in the video	4
12.	Ease of operating the interactive website-based learning media	5
		90%
	Average	**4,6**
Design Aspect		
1.	Quality of the website-based interactive learning media	4
2.	Attractiveness of the thumbnail design	5
3.	Accuracy of the typing layout	5
4.	Consistency in spacing for titles, subtitles, and material typing	5

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No.	Criteria	Score
5.	Clarity of writing/typing	5
6.	Completeness of components in each teaching module unit	5
7.	Accuracy in presenting the material	5
8.	Attractiveness of the physical appearance	4
9.	Accuracy in the use of design/layout for material presentation	4
10.	Appropriateness of time duration with target audience characteristics	5
11.	Clarity of material explanation	5
		93%
	Average	**4,7**
	Total	**108**
		94%
Overall Average		**4,7**

Data Source: Research 2024

Table 2 shows the evaluation results given during the development of the web-based interactive learning media.

Implementation of Learning Media Based on The Website in The Textile Knowledge Course

The practicality level is determined during the implementation stage, which involves testing the product using a student questionnaire. The student response questionnaire is given to obtain feedback from the students. This stage involves 12 students with small-scale trials aimed at all students who are research subjects. The selection of these 12 students is based on their understanding levels, categorized as high, medium, and low. Each of the 12 students has a specific understanding level. The researchers distributed the website link to the students, and then, with the lecturer's help, guided the students to study the website. After the students completed the planned learning activities, the researchers distributed a response questionnaire regarding the interactive learning media based on a website product to the 12 trial students.

Evaluation of Learning Media Based on The Website in The Textile Knowledge Course

This stage tests whether the product of interactive learning media development based on a website is practical for use in the learning process. The evaluation process was carried out with a small group trial on 12 students, and the results obtained were that the interactive media product based on the website was 28.67 or 95%, which means that this product has been proven to be practical in supporting the learning process.

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Discussion

Learning in the Textile Knowledge course aims to improve students' understanding and skills in analyzing textiles, identifying types, and understanding the development of textiles in the surrounding environment with the textile material concepts they already possess. One way to improve students' analytical skills is by using attractive and interactive media, which can help students understand the material concepts and help students connect the concepts they already possess with the real world (Adnan & Istiqomah, 2022; Janul, 2024; Putra & Salsabila, 2021; Ridwan et al., 2021). This study's competencies align with those in the RPS Syllabus, including textile knowledge competencies, textile idea development skills, and understanding of learning materials. This research is also positioned to develop better learning media than the previously used teaching media by the lecturing faculty. The development of this Interactive learning media based on a website product is designed by presenting discussion material centered on learning objectives, Odd Semester Syllabus RPS, containing text, images, and videos to help students understand the material and their involvement in the teaching and learning process.

Based on a Website, this Interactive Learning Media has also been developed with characteristics validated by material, design, and media experts. The interactive learning media based on the website is designed to be used online so students can learn independently outside the campus environment. Furthermore, in the Interactive learning media based on website products, the content includes evaluation to re-test memory and previously learned material. With the validation of the Interactive learning media based on website products, this product is ready to be used in teaching and learning. Based on the needs analysis conducted previously, it shows that the interactive learning media based on website products helps improve classroom learning effectiveness. Website-based interactive learning media is a complete guide for lecturers, including learning objectives, materials, learning steps, and evaluations.

Scientifically, website-based interactive learning media is based on a structured learning theory to achieve the expected competencies. In this context, website-based interactive learning media in the textile science course is designed to improve the learning outcomes of 3rd-semester students in the Family Welfare Education Department by providing interactive and targeted tools for lecturers in preparing materials. This website-based interactive learning media helps lecturers manage the curriculum-based learning process, facilitates the delivery of content more effectively, and provides evaluations to measure student learning outcomes. This follows the characteristics of interactive learning media, which aim to improve teaching effectiveness in the classroom. Website-based interactive learning media is designed to be used online so students can learn independently outside of campus. Furthermore, in the Website-Based Interactive Learning Media product, the content contained therein is equipped with an evaluation to re-test memory and previously studied material (Dhani et al., 2022; Widhiasti, 2022).

CONCLUSION

The needs analysis obtained through questionnaires filled out by 3rd semester students requires learning materials such as Interactive learning media based on websites equipped with audio-visual, where the data obtained is in the "needed" category. This result is a benchmark in developing Interactive learning media based on websites. The design of the development of interactive learning media based on websites is designed based on learning objectives, and the RPS (syllabus), materials, and themes are designed using Canva, explored in PDF format, then uploaded to Google Drive, and finally to Google Sites, complete with materials and images. The interactive learning media based on the website product went through content validation and media and design validation stages. The material and media validity received a highly valid category, meaning this product is suitable for testing. Trial of practicality by conducting a small group trial by distributing questionnaires in the form of Google Forms to semester 3 students taking the textile science

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course, seeing positive student responses to interactive learning media based on the website, obtaining an efficient category, so it can be concluded that the development of interactive learning media based on the website can support the learning outcomes of students in the classroom. The effectiveness of Interactive Learning Media Based on Website is carried out by conducting a small group trial by giving a pre-test and a post-test to students who aim to find out whether there is an improvement in student learning outcomes after using Interactive Learning Media Based on Website.

AUTHOR'S NOTE

I, Adelia Chairun Nisa, declare no conflict of interest regarding the article's publication. Also, in the writing of data and the content of this article, it is free from plagiarism. Please write a statement that there is no conflict of interest regarding the publication of this article. Thank you.

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