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DEVELOPMENT OF INTERACTIVE WEB-BASED LEARNING MULTIMEDIA USING GOOGLE SITES FOR ENGLISH SUBJECT ON RECOUNT TEXT AND REPORT TEXT MATERIALS IN VOCATIONAL HIGH SCHOOL (SMK)

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Abstract

In an era where most activities have implemented the use of technology and maximized potential with satisfactory results, technological adaptations are needed that are able to keep up with the endless development of the times. The research objective in this development is to produce a product in the form of website-based interactive multimedia using Google Sites that is valid and feasible to facilitate learning abilities and increase student motivation. This multimedia development uses the Lee & Owens development model. The multimedia development product was validated through material experts and media experts to determine the level of validity and feasibility of the multimedia developed. The assessment used is a linkert scale assessment questionnaire. The assessment data obtained was then analyzed descriptively. This website-based interactive multimedia produces products in valid criteria or feasible to use with the overall results of material experts of 83, 75%, media experts of 95.83%, and student trials of 86, 8%. With this website-based interactive multimedia, it is hoped that the needs in the learning process in the rapid era of digital and technology will be met.

Keywords: Vocational High School, Google Sites, Interactive Web Based Learning.

1. Introduction

Education is an activity in an effort to mature or change the behavior of an individual or a group of people through teaching and training efforts (KBBI, 2024). In education, learning is an activity that will never be absent; various methods and strategies are needed to achieve learning objectives. The use of appropriate learning media is also a crucial factor to achieve these objectives. Multimedia-based learning media is one way that can be used because it makes lessons more interesting and easier to understand. Teachers can even combine two or more media simultaneously or collaborate one strategy with another. This makes it more engaging for students because they can see, listen, and interact directly, which also increases motivation in learning.

"Multimedia is the process of integrating two or more communication media such as text, graphics, animation, audio, and video with the characteristic of computer interactivity to produce an attractive presentation." It can be understood that multimedia-based media can attract attention and interest, be more communicative, easy to modify, interactive, and offer freedom to express creativity (Mayer, R. E., 2017). Many literatures on web-based learning indicate that one of the main obstacles in using effective teaching materials is not the design of the materials themselves but the difficulty of access to technology. Through programming and the use of downloadable internet programs, we can create interactive course materials containing online activities (such as self-assessment), animations, or even simulations. This can enhance learning to be more enjoyable and meaningful for students.

Web-based learning is often called online learning or e-learning because it includes online content. Discussion forums via email, video conferences, and live lectures (streaming) can all be conducted through the web. One benefit of using the web to access course materials is that web pages can contain hyperlinks to other web sections, enabling access to a vast amount of web-based information. Websites that serve only as repositories of knowledge without links to learning activities, communication, assessments, and not learner-centered cannot be considered true web-based learning. Web-based learning in an institution or school is often integrated with conventional face-to-face learning.

When designing web-based programs, the needs and experiences of learners must be considered. The role of the teacher is to ensure that the learning environment provided takes into account students' needs and ensures they are effectively prepared and supported. Therefore, appropriate technology and adequate computer skills are necessary to achieve the best results from web-based learning. Web-based programs can encourage more independent and active learning and often become an efficient way to deliver subject matter. Web-based learning offers great opportunities to learn and access a wide range of knowledge and information (McKimm, J., Jollie, C., & Cantillon, P., 2003).

In reality, many teachers in schools rarely utilize learning media, especially IT-based media such as Google Sites (Hadisaputra, et al., 2019 in Nuraini, et al., 2023). As a result, learning tends to be monotonous, and students lack the desire to engage in the learning process, causing learning not to run optimally because learning objectives are difficult to achieve. Few teachers are able to design and use learning media, so they still use simple media that lack the ability to attract students' attention during the learning process (Adlin, 2019; Putra, et al., 2021). Nurdin (2019) stated that teachers still use conventional learning resources and media, such as lecturing methods and media like whiteboards, markers, paper, and textbooks.

SMK Ma'arif is a vocational high school located near the city center in a strategic location. The school has approximately ten classrooms with adequate facilities. The school also provides a computer laboratory as a facility for students to access technology and as a practice room. However, it is known that some students still cannot utilize technology optimally and need guidance to access it independently. From a student's statement, it is said that adaptation to technology has not yet been fully implemented, especially in the learning process. Some teachers tend to use conventional methods, and only a few have implemented technology use in their teaching activities.

The use of technology at SMK Ma'arif Batu has been sufficiently applied and accustomed based on initial observations. Extracurricular activities that apply technology use include IoT (Internet of Things). IoT is an activity that utilizes technology to connect devices or media linked to the internet. IoT facilitates students to access computers and all that is inside to learn how to use them so they can be applied in the use of internet-based media. Even the number of students participating in this extracurricular activity is quite large and comes from various majors in the school. In addition, some activities, such as exams, have also begun to be paperless.

In an era where most activities already apply technology and maximize potential with satisfactory results, adaptation to technology that can keep pace with the ever-evolving times is necessary. This is because one important factor in development is learning (Khoerunnisa &

Aqwal, 2020). The combination of various development outcomes is learning (Manongga, 2021). Therefore, if learning outcomes are combined with continuously evolving technology, it will produce innovations that can be used to solve problems.

Balancing learning and technology can be done by utilizing teaching media combined with technology as an aid in the learning process. Considering that the use of learning media in learning can provide significant impacts, especially positive ones on the development of students' abilities and learning progress, including motivation, potential, knowledge, learning outcomes, and others (Ruslan & Hamid, 2024). The teaching methods used by English teachers at SMK Ma'arif have implemented the use of technology and learning media well, such as watching films or stories in English and making videos. However, the use of learning media in English lessons needs to be further varied to improve the effectiveness of teaching and learning activities. Considering that this subject is an important foreign language needed to keep up with current developments.

Varied learning media can be a solution to improving learning effectiveness. Based on observation results, students at SMK Ma'arif have diverse learning characteristics. Different learning styles can be fulfilled by utilizing a variety of learning media. One learning media that can be used is interactive multimedia based on web-based learning, where the website contains various media that can be combined according to the students' needs. Learning using web-based multimedia can also be flexible because in this technological era, websites can be easily accessed using devices connected to the internet. The media available on the website can be integrated to accommodate different student learning styles.

Based on the problems above, the researcher identifies several alternative solutions to address the issues. Innovative and effective teaching methods are highly needed, with media as an important mediator in education. One multimedia platform that can be used as an alternative is Google Sites. Google Sites can be one choice of media to be used during the learning process. Various available features can facilitate users in developing teaching media or multimedia learning. The use of Google Sites media will be done by creating a learning website specifically for the English subject. The utilization of Google Sites media is expected to show enthusiasm and interest from students during the learning process and increase the application of technology in learning.

2. Method

The research and development of web-based multimedia requires a development model as a reference for conducting the study. This web-based multimedia development adopts the Lee & Owens development model. The Lee & Owens model is chosen for this research and development because it is specifically designed for developing instructional multimedia. According to Ariyati (2022), multimedia-assisted learning is highly suitable for developers in creating interactive multimedia using the Lee & Owens development model.

The research and development procedure in the Lee & Owens model consists of five stages: Assessment/Analysis (including needs assessment and front-end analysis), Design, Development, Implementation, and Evaluation.

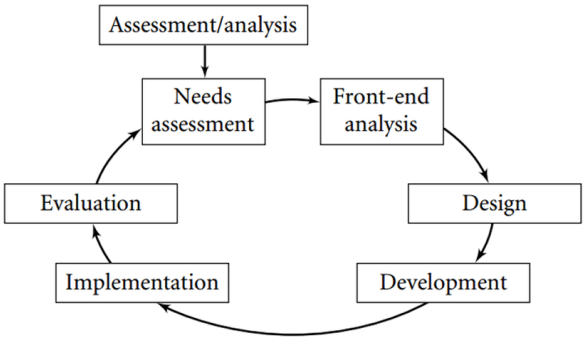

Figure 1. lee & Owens models

The development of this multimedia website involved several subjects, including experts consisting of one English teacher from SMK Negeri 03 Batu as a subject matter expert, one Educational Technology lecturer from Universitas Negeri Malang as a media expert, one English teacher from SMK Ma'arif Batu as a practitioner expert, two tenth-grade students from the Visual Communication Design major and one tenth-grade student from the Software Engineering major at SMK Ma'arif Batu as small group trial subjects, as well as nineteen tenth-grade students from SMK Ma'arif as field test subjects.

3. Results and Discussion

3.1 Result

The product validation data for the development of the interactive web-based multimedia using the Lee & Owens development model was obtained from assessments by the subject matter expert, media expert, and practitioner expert.

The first stage in developing the interactive web-based multimedia is analysis to identify the needs and problems in learning. It was found that the majority of students consider English to be a fairly difficult language to master, although understanding English will be very useful in the workplace and future. In addition, the implementation of technology-based learning is still very minimal, especially the use of web-based multimedia, which is still rarely applied. Next, the design stage includes determining the material structure, creating the website workflow, and developing the storyboard for the website interface.

The third stage is the development of the interactive web-based multimedia. This involves collecting materials that will become components of the interactive website through collaboration across various platforms such as Canva, Google Slides, Google Docs, Google Forms, and Word Wall. The developed components will then be assembled into one unit within the interactive multimedia on Google Sites.

The developed interactive web-based multimedia, EduMy.id, will then undergo validation by the subject matter expert and media expert. After the product is declared valid by the experts, it will proceed to testing with students who serve as the research subjects.

Results can be presented in graph, table, or descriptive form. Loading tables and figures should contain only essential information from research results. Analysis and interpretation of these results is necessary before they are discussed.

3.2 Discussion

The development of interactive web-based multimedia using Google Sites for the materials of recount text and report text aims to develop web-based interactive multimedia to facilitate learning abilities and increase student motivation, determine the validity level of the developed interactive multimedia, and evaluate its practicality. Based on preliminary observations conducted by the researcher at SMK Ma'arif Batu, it was found that a learning media capable of enhancing students' motivation and interest in English comprehension, specifically in report text material, is needed. This material is crucial for students' future skills, especially in compiling and reporting events, notably after completing their fieldwork practice (PKL). Furthermore, to improve the use of technology in learning, accessible digital media available anytime and anywhere are required, as well as the introduction of website-based learning media, which is still rarely applied. Interviews with students revealed that most had never experienced learning through interactive web-based multimedia.

The development of interactive web-based learning multimedia using Google Sites for recount and report text materials follows the Lee & Owens development procedure consisting of five stages: analysis, design, development, implementation, and evaluation. The Lee & Owens model was chosen because, according to Ariyati (2022), multimedia-assisted learning suits developers in creating interactive multimedia using this model. This aligns with Susarno's (2024) opinion that the analysis stage in the Lee & Owens model contains more detailed specification analysis, particularly technology analysis adjusted to field conditions, facilitating developers in determining multimedia specifications to be developed. Thus, data collection in multimedia development can identify gaps and problems to create interactive multimedia appropriate to the context.

The interactive multimedia developed underwent validation by three experts: subject matter expert, media expert, and practitioner expert. The validation instruments were adapted from criteria by Anggraeni (2021) and modified accordingly. Material validation assessed content feasibility, language aspects, and evaluation aspects. Media validation included multimedia aspects, visual communication, typography, language, media programming, and functional benefits. Furthermore, the trial assessed display, user-friendliness, material presentation, and the benefits of the web-based interactive multimedia.

Overall assessment of the content in the web-based interactive multimedia was 83.75%, categorized as "very valid." The subject matter expert stated that the product could proceed to media validation with some revisions. The overall media evaluation score was 95.83%, also in the "very valid" category. The media expert remarked that the web-based interactive multimedia product could proceed with research after certain revisions.

Practicality validation was conducted by the subject teacher after expert validations. The overall score for the interactive multimedia web-based learning reached 91%, categorized as "very valid." The practitioner validator stated that the product was ready for a small group trial with some revisions.

The product then underwent field testing, receiving a score of 86.8%, classified as "very feasible." The near-perfect detailed scores confirmed that the EduMy.id website-based multimedia could be used in learning, with good display aspects, ease of use, material

presentation, and multimedia benefits. This supports Fitriani's (2021) findings that learning activities using interactive website-based learning media are effective.

This view aligns with Pak Firman, an IT expert teacher at SMK Ma'arif, who stated that an application should be user-friendly, especially for those less skilled in technology, so that even novice users can use it or at least be familiar with it. Media use also supports optimizing student learning potential and enhances learning effectiveness (Susanti, 2022).

The application of multimedia in learning helps students study and understand lessons more effectively and enjoyably. Variations in multimedia use and different learning models can improve students' motivation and subsequently their learning outcomes (Suryandaru, 2020). This supports the development of web-based interactive multimedia designed to provide varied learning media aimed at increasing students' motivation to learn.

4. Conclusion

Interactive web-based multimedia learning using Google Sites provides ease for independent learning. This web-based interactive multimedia has the advantage of packaging all materials using various media formats such as images, text, audio, video, and animated games to accommodate different student learning styles.

In expert assessments, the overall score given by the subject matter expert was 83.75%, categorized as very valid; the media expert gave 95.83%, also very valid; and the practitioner expert provided 91%, likewise categorized as very valid.

Based on student responses, the interactive web-based multimedia using Google Sites was deemed feasible with an overall score of 86.8%, falling into the very feasible category. Thus, the EduMy.id interactive multimedia effectively facilitates English learning and enhances students' independence in learning.

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