

ABSTRACT

EDUCATIONAL WEBSITE INTERACTION DESIGN OF MANGROVE ECOSYSTEM CONSERVATION WITH THE DESIGN THINKING METHOD

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Based on data from the Ministry of Environment and Forestry (KLHK), the area of mangrove forests in Indonesia in 2021 reached 3,364,076 hectares, a decrease of around 6 million hectares from 1982 which reached 9.1 million hectares. Despite an 8.4% decrease in the Mangrove forest deforestation rate in the 2021-2022 period compared to the previous year, the deforestation rate is still high. Therefore, further measures need to be taken to address the decline in Mangrove forest area and maintain the sustainability of this ecosystem in Indonesia. This research aims to design the interaction design of an educational website for Mangrove ecosystem preservation. The approach used in this design is Design Thinking, which involves five stages of the design process, namely the Empathize, Define, Ideate, prototyping, and test stages. The applied testing method involves Blackbox for independent evaluation of the overall functionality of the system, as well as the UMUX method for measuring user experience that focuses on usability and satisfaction. Through this testing, the effectiveness and responsiveness of a website can be assessed. Wilcoxon test was conducted on website users to evaluate the influence of the website on their understanding. The limitations of this research include the design of website interactions through the development of user interfaces and user experience with the output results in the form of website prototypes. The results of the tests that have been carried out show that the website has successfully passed the Blackbox test, obtaining a level of user satisfaction through the UMUX test with an average result of 84.37, with these results the UMUX value can be said to be good because it has received a value of more than 60. Pre-test and post-test scores after using the Mangrove Ecosystem Educational Website. With a significance value of 0.004, which is lower than the significance limit of 0.05, the null hypothesis is rejected, and the alternative hypothesis is accepted. This means that the educational website has a positive impact. This result shows that the intervention using the website makes a positive contribution to learning, supporting efforts to convey information and understanding in Mangrove conservation education through the lestarimangrove.site website. Based on the results obtained in this study, it can make a significant contribution to efforts to preserve the Mangrove ecosystem and increase public understanding through a website that is effective and in accordance with user needs.

Keywords: *Design Thinking, Interaction Design, Mangrove Conservation, UMUX, Usability Testing*