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Developing and Validating Digital E-module Oriented on Science Literacy using Flipbook Platform on Heat and Temperature Topic[1*]

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Abstract

This study explored the development and validation of a digital e-module for science literacy, specifically focusing on the topic of heat and temperature, utilizing the flipbook platform. With the rapid digitalization in education, the research aims to bridge the gap in Indonesia's educational technology, where many educators lack proficiency in using digital tools. The e-module, integrating multimedia elements such as text, images, and interactive features, is designed to enhance students' understanding of scientific concepts while fostering digital and science literacy. This study used Research and Development approach, utilizing the ADDIE model which includes five stages (analysis, design, development, implementation, and evaluation). The e-module underwent validation by experts in instructional materials and digital learning, followed by limited testing with 26 Grade 7 students and 4 science teachers. Results indicated that the digital e-module is not only feasible but achieved a content validity coefficient of 0.94 and an average practicality score of 87.63%, indicating high validity and practicality. The findings suggest that the e-module effectively supports science literacy by providing an engaging, accessible, and interactive learning experience. This study contributes to educational innovations by demonstrating how digital tools can enhance science teaching and learning, especially in the context of challenging topics such as heat and temperature. Further research may explore broader applications of e-modules in other subjects and educational levels.Keywords:digital e-module; science literacy; heat and temperature topic; flipbook platform, ADDIEHow to Cite:Handayani, Y., Rahmawati, R., Sultan,A. D., Fiskawarni, T. H., Andriani, A. A., & Widiasih, W. (2025). Developing and Validating Digital E-module Oriented on Science Literacy using Flipbook Platform on Heat and Temperature Topic.Prisma Sains : Jurnal Pengkajian Ilmu Dan Pembelajaran Matematika Dan IPA IKIP Mataram,13(3), 848–868. https://doi.org/10.33394/j-ps.v13i3.15618https://doi.org/10.33394/j-ps.v13i3.15618