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Development of an Interactive E-Module Based on Problem Based Learning to Improve the Ability of Students to Compile Fashion Collection Planning Tasks in Vocational High Schools

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Abstract

Vocational high schools continue to face a number of persistent challenges. Conventional teaching methods remain largely teacher-centred, rendering students passive and insufficiently engaged in the learning process. Practical subject matter, such as the planning of fashion collections, requires instructional media capable of accommodating visualisation, interactivity, and engaging simulations so that students may grasp design concepts and creative processes, as well as solve problems in a contextual manner. This study aims to develop a ClassPoint-based e-module using a Problem Based Learning approach in order to improve the ability of students to compile fashion collection planning tasks. The research method employed is the ADDIE Research and Development (R&D) model. The product was validated by three media experts and three content experts; its effectiveness was examined through pre-tests and post-tests administered to a control group and an experimental group comprising a total of 72 students. The results indicate that the e-module was deemed suitable by media experts with a mean score of 4.09 and highly suitable by content experts with a score of 4.49. In the practicality scalability test, the Teacher Scalability Coefficient (Ks) obtained a score of 0.86, while the Student Ks score was 0.85, both exceeding the required threshold of 0.60 (Nazir and CIA, 2005: 99-113). The effectiveness test yielded an N-Gain score of 83.71% in the experimental group, which was substantially higher than that of the control group. The independent t-test further confirmed a statistically significant difference in learning outcomes following the intervention. It is therefore concluded that the fashion collection planning e-module is valid, suitable, practical, and effective for improving the cognitive ability of students in the subject.

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