UNIVERSITI TEKNOLOGI MARA

LEARNWISE: AN ENGLISH LEARNING COURSEWARE FOR PKSK CANDIDATES USING CONSTRUCTIVIST LEARNING THEORY

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ABSTRACT

The increasing reliance on traditional, teacher-centred methods in English language classrooms has limited active participation, reduced student engagement, and restricted access to self-paced learning among primary school students in Malaysia. One of the problems that occurred with students who are preparing for the Pentaksiran Kemasukan Sekolah Khusus (PKSK) examination is that they had a short concentration span in the non-interactive lesson, and technology is not used optimally in independent study outside of the school. This project aimed to design and developed an interactive web-based English e-learning courseware named LearnWise to address these problems and support Standard 5 and 6 students in preparing for the PKSK examination. The three objectives of this project were to identify the e-learning requirements for PKSK candidates, to design and develop the courseware using Constructivist Learning Theory, and to evaluate the functionality and usability of the system. The ADDIE model was selected as the project methodology, which involves the analysis, design, development, implementation, and evaluation stages. The courseware was developed using Visual Studio Code with HTML, CSS, and JavaScript, and was evaluated through functionality testing, expert evaluation involving three subject matter experts, and a user evaluation using the System Usability Scale (SUS) questionnaire with 30 respondents. All functionality test cases passed successfully. The expert evaluation affirmed that the courseware has implemented Constructivist Learning Theory in all the modules such as grammar, spelling, vocabulary and idioms. The SUS evaluation produced an overall score of 90.58, which falls within the "Best Imaginable" range, indicating an excellent level of usability. The findings confirm that LearnWise is an effective and usable e-learning tool that successfully addresses the identified problems and supports active, self-directed English language learning among PKSK candidates. Future improvements involve increasing the scope of content material to incorporate reading comprehension and listening abilities, optimizing courseware for mobile devices, and executing extra substantial tests using more representative samples of users.