UNIVERSITI TEKNOLOGI MARA

SCIENCE LEARNING COURSEWARE FOR PRESCHOOLERS USING ASSISTIVE APPROACH

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ABSTRACT

Most learning material for preschoolers are based on the books and do not have any interactive multimedia. Science Learning Courseware for Preschoolers is created based on student that currently has problem in science. Currently the teaching method is based on their teacher creativity. This courseware is created for preschoolers' age 5 and 6 that have a science problem. ADDIE model has been implemented in this science courseware to make the project more systematic. ADDIE model stands for analysis, design, develop, implement and evaluate. Theory that been used to complete this courseware is Assistive Approach. These approach have a few elements that lead to an interesting elements in teaching. The elements are assistive technology for communication, mobility or gross motor skills, independence and interactions. All of the elements are specific alignment with each of the guidelines. For this proposed courseware communications and independence will be implemented in courseware. The syllabus will be supported by interactive approaches with the video and animation as a method of learning science. It also included quiz-based activities for the preschoolers to understand more about the subject. Expert evaluation and user evaluation have been distributed to evaluate whether the user requirement of the courseware is fulfilled or not. User evaluation has been discussed by using usability metrics method where it consists of effectiveness, efficiency and satisfaction. The construct is consisting of interface, usability, activity, navigation, theory of Assistive Approach of interface design, element of multimedia for sound, element of multimedia for image, element of multimedia for text, element of multimedia for multimedia for animation and video.

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