

Mobile Learning Model for Children with Special Learning Needs

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Abstract

The mobile learning developed for children with special learning needs have limited users even within the same learning disability because severity in learning disability varies greatly even within a specific learning disability. Mobile learning developed for these children currently uses the same model used by any mobile application development where it caters for the masses rather than focusing on personalisation. The objective of this paper is to propose a mobile learning model for children with special learning needs, named APIE. ADDIE model is a generic instructional system design model that consists of processes: Analysis, Design, Develop, Implement and Evaluate. APIE is a modification from the ADDIE model, which makes APIE a mobile learning application development model. APIE iterates the design and develop processes under the Personalisation stage to explore the most suitable way for customisation for individual learning. APIE is applied to the development of a mobile learning for Dyslexic Children to assist the children to read and spell. Through APIE, a mobile learning application, DysleRead is produced. DysleRead integrates two classroom approaches: sight word and phonic where teachers can set and monitor individual learning needs of the children. The teachers find DysleRead helpful to teach the children. This shows that the mobile learning application produced using APIE meets the objective to cater for personalisation within a specific learning needs without undermining the role of the teachers. Hypothetically, APIE model is applicable to other special learning needs too.

Keywords: Mobile learning, mobile learning model, ADDIE, sight word, phonic approach

1. Introduction

Learning disability (LD) is defined as deficits in one or more of several domains, including reading disabilities, mathematical disabilities, and disabilities of written expression (Lyon et al., 2003). For LD such as Dyslexia, when a child is certified with the condition the level of severity can vary from one child with dyslexia to another. These assessments on the level of severity is mostly determined by trained teachers. Only then the teacher will be able to determine the remedial approach to assist the child in learning according to the level of severity; in most cases, the solution is a one-to-one session to learning. Although there have been learning tools especially mobile learning apps to accommodate individual learning needs based on the severity, a tool that allows a teacher that is working with multiple children with varying special learning needs, have yet to be developed. When the mobile learning models are studied, these models are limited and not designed to cater for such special learning needs.