

DEVELOPMENT AND USABILITY STUDY OF MULTIMEDIA COURSEWARE
FOR SLOW LEARNERS: 'KOMPUTER SAYA'

by

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ABSTRACT

Multimedia has proven for its convenience as assisting tools in learning. One of the unique advantages offered by multimedia in the field of education is that it enables the creation of customized learning tool for different types of learners to meet their individual learning requirements. Slow learners are those with limited cognitive abilities, whose thinking skills develop slower than the norm for their ages and have difficulties in learning. Realizing their special needs in learning, they need an individualized learning tool, whilst previous researchers have proven that slow learners can gain advantages with incorporation of multimedia into their daily learning. This research aims is to fulfil three main objectives: 1) To propose a conceptual framework for designing multimedia courseware for slow learners; 2) To develop a multimedia courseware for slow learners by studying and applying suitable educational theories, educational strategies and usability needs; and 3) To evaluate the developed multimedia courseware. The courseware namely 'Komputer Saya' has been developed as referring to the 'Sukatan Pelajaran Pendidikan Khas Bermasalah Pembelajaran Sekolah Rendah & Menengah', which focus on functional academic skills based on the curriculum of Multimedia Component. The tools used are Adobe Flash CS3 as the main development platform, also Adobe Illustrator and Adobe Photoshop for interfaces and graphics design. The research also adopted a user-centered design approach as overall framework. The summative evaluation was carried out at the end of the research stage using qualitative and quantitative techniques that involved eight slow learners, four teachers and one parent. Overall, the results have proven that the courseware has been developed within suitable curriculum context of slow learners and it fits well according to their usability needs in terms of engaging, efficiency, ease of learn and satisfaction attributes. This research study has contributed significantly of taking in fundamental requirements in terms of content and usability in designing a high-quality multimedia tool to help slow learners in their learning.