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PROGRAMME ABSTRACT

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"Bridging Gaps with Creativity for Future Sustainability"

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"Bridging the Gaps with Creativity for Future Sustainability"

EDITORS AND COMPILERS:

Prof. Madya Dr. Shafinar Binti Ismail
Mohd Halim Bin Mahphoth
Aemillyawaty Binti Abas
Fazlina Mohd Radzi
Aidah Alias
Ilinadia Jamil
Nor Yus Shahirah Hassan
Shafirah Shaari
Farihan Azahari

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Division of Research and Industry Linkages
Universiti Teknologi MARA MELAKA
KM26 Jalan Lendu,
78000 Alor Gajah Melaka
Tel +606-5582094/ +606-5582190 / +606-5582113
Web: www.miiex2017.com

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TOUCHSCREEN ASSISTIVE LEARNING NUMERACY APPLICATION FOR CHILDREN WITH AUTISM

Muhamad Fairus Kamaruzaman, Mustaffa Halabi Bin Azahari (Prof. Dr), Harrinni Binti Md Noor (Dr) , & Fazah Akhtar Binti Hanapiah (Dr.)

UNIVERSITI TEKNOLOGI MARA

Abstract

Touchscreen Assistive Learning Numeracy Application (TaLNA) is a touchscreen learning based application design for children with autism. This application will be used by teachers in special education schools to teach children with autism on basic numeracy. The TaLNA content was adapted and aligned with the Integrated Curriculum for Learning Disabilities issued by Ministry of Education Malaysia. Besides, it also associated with the applied behaviour analysis (ABA) intervention concept. State-of-the-art has shown that, the children with autism have tendency to react on touchscreen rather than conventional verbal communication. TaLNA aims to create an environment that scaffolds the learning process for children with autism. TaLNA consist of three topics sections 1) learn and discover the numbers 2) tracing numbers by using dots images and 3) learn and solve the addition arithmetic problem. Embedded with multi-coloured, animated and interactive learning will feasibly keep the children with autism motivated and engaged. Based on the experimentation, direct observation, and interview with the special education teachers as well as autism experts, it is shown that the children with autism gained positive attitude, increased self-confidence and obtained self-reliance in using the TaLNA. It is an inspiration that TaLNA could uplift the instructional learning environment for children with autism, which could avail boost in early childcare education (ECCE) and thus foster the quality of life for children with autism.