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An Interactive Mathematics Game Using Scratch Programming

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ABSTRACT

This paper reports a new approach to teach children in learning mathematics through an interactive Mathematics game using Scratch programming. Previous studies showed that there are few factors which caused Mathematics achievements among Malaysian students are not satisfactory enough as compared to other countries. These are because of the used of tools and methods, language used and perspective held by parents, teachers and children itself about the nature of mathematics learning and teaching. Besides difficulties in perceiving mathematics, children in Malaysia are less likely to be exposed in development of the information technology (IT) field. It is true that they are more exposed to only using the technology instead of developing the technology. The main purpose of this work is provides a platform in learning basic mathematics skills under game based learning environment. This in turn makes the mathematics subject into fun subject to learn through an interactive application using scratch programming tool. Hence, increase children fundamental skills in information technology (IT) fields by engaging children with interactive application tool. The target group will be the children from the age of 5 to 9 years old. In addition, the scratch programming will be use in order to develop new skills in children and capture their interests in exploring information technology (IT) skills and fields.

KEYWORDS

Mathematics, Game-Based Learning, Scratch Programming, e-Learning, Children, information technology;