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INNOVATION

CATEGORY

Dadu BiMate TJI: AN INNOVATION OF BOARD GAME FOR FUN AND EFFECTIVE NUMBER, BASIC OPERATIONS AND BASIC MEASUREMENT FACTS LEARNING IN PRIMARY MATHEMATICS

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In early years of learning mathematics, it is obviously important to ensure pupils are able to master: i) the number facts consist of whole number, fraction, decimal and percentage; ii) the concept of basic facts of four basic operations namely addition, subtraction, multiplication and division and iii) basic measurement facts which comprising length, mass and volume of liquid. Mastering the concept of number and basic operation will help pupils understand word problem in depth and they become a better problem solver. While, be fluent in number facts and basic operations facts will benefit pupils to easier apply it in calculate the answer when big numbers are involved. Mathematics is a difficult subject for most pupils and in the other hand games always attracts attention, interest and motivation. Provide the opportunities for pupils to learn mathematics through playing games and quizzes may increase their motivation and performance in learning mathematics. Board game is the base in this innovation because pupils from any school may use it since it requires no other equipment, tools or facility and it can be used without any restriction. Online quizzes also included in this innovation to assist pupils strengthen their knowledge and understanding. Play mathematical board games in small group might be an appropriate platform to foster 21st century skills consist of critical thinking, communication, collaboration and creativity. A quantitative study involved 88 pupils has been conducted and the results shown that pupils' scores in the post-test were higher compared to pre-test and from the questionnaire given, pupils were strongly agreed that *Dadu BiMate TJI* has increased their interest, motivation and understanding in learning mathematics. *Dadu BiMate TJI* already registered under copyright and ready for commercialization. *Dadu BiMate TJI* has potential for commercialization since educational board games attract high demand among teachers and parents.



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