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**THE EFFECTIVENESS OF BRACE MAP I-THINK  
THINKING TOOL IN TEACHING SCIENCE  
YEAR 4 STUDENT**

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## **Abstract**

The purpose of this study was to identify the effectiveness of brace map i-THINK thinking tool in teaching science year 4 student at Sekolah Kebangsaan Dato Traoh, Muara Tuang Kota Samarahan. Sixty students from the control and test group were involved in this study. Previous studies indicate that the mind mapping concept will be capable to improve performance in studying science among the student. The result in this study revealed the success of the mind mapping especially brace map i-THINK thinking tool. There are clear significant data difference between control and test group from performance of the assessment and marks from both group. In addition, students also gave positive feedback on the implementation of the brace map i-THINK in the test group. Student in the test group also mostly agreed that the brace map i-THINK thinking tool was able to increase their performance when learning science. As a conclusion of this study revealed that brace map i-THINK thinking tool is another alternative way to teach science which can enhance students learning as it is.

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## **CHAPTER 1: INTRODUCTION**

### **1.0 Introduction**

Implementation of the Standard Curriculum for Primary Schools (KSSR) in year 2011 changed the landscape of our education system. Ministry of Education in Tenth Malaysia Plan 2011-2015 planned transforming the education system with several strategies. In the Eleventh Malaysia Plan Strategy Paper Tenth for Transforming Education System, the application of higher order thinking skill (HOTS) was intensified in the teaching and learning process to inculcate a thinking culture (Ministry of Education, 2013). Its also improved critical thinking of the student to more creative and innovative to contribute innovation of the nation.

Since year 1994, High Order Thinking Skill (HOTS) has been emphasised in science curriculum. The thinking skill are more focused on the level of thinking from the bottom to the top. Since in year 2011, Standard Curriculum for Primary Schools (KSSR) strengthen High Order Thinking Skill (HOTS). According to the FJ King, Ludwika Goodson, Faranak Rohani (2007), Higher Order Thinking Skill include critical, logical, reflective, metacognitive and creative thinking. They are activated when individuals encounter unfamiliar problems, uncertainties question or dilemmas. Successful applications of the skills result in explanations, decisions, performances, and products that are valid within the context of available knowledge and experience and that promote continued growth in these and other intellectual skills. Higher order thinking skills are grounded in lower order skills such as discriminations, simple application and analysis, and cognitive strategies and are linked to prior knowledge of subject matter content.