

# Development of Interactive Ebook Model with Augmented Reality Using the Gamification to Enhance Memory Retention in Chinese Vocabulary for Primary School Students.

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- **Abstract:** The objectives of this research: (1) To develop an interactive e-book model with augmented reality technology using gamification to promote the retention of Chinese vocabulary in primary school students. (2) To study the effect of using interactive e-book model with augmented reality technology using gamification to enhance the retention of Chinese vocabulary among primary school students, this consists of learning achievement from using augmented reality e-book model and retention in memory from using augmented reality e-book model. The sample consisted of 92 students in Grade 6, under the Bangkok Office of Private Education who voluntarily and were ready to participate in the research which is studied with e-books with augmented reality based on 5 learning units. The statistics used to analyze the data in this research were Mean, Standard Deviation, and t-test for dependent samples. The results showed that: 1. The e-book model has six components: (1) E-book structure. (2) Augmented reality (AR). (3) Gamification. (4) Retention in memory. (5) Interaction. And (6) convenience facilities. 2. The pre-study test result was lower than the specified threshold at 75% with statistical significance at the 0.05 level. The result of the post-study test has a mean score of 85.7 out of 100. 3. The results of the memory retention test in Round 1 and Round 2 showed that after 2 weeks of study, and after 1 month of study which had a statistically significant score higher than the average after 5 units of study at the 0.05 level.
- **Keywords:** Interactive e-book model, Chinese vocabulary, Bangkok Office of Private Education, e-book model