

## **An Augmented-Reality Interactive Card Game for Teaching Elementary School Students**

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**Abstract :** Game-based learning can enhance the learning motivation of students and provide a means for them to learn through playing games. This study used augmented reality technology to develop an interactive card game as a game-based teaching aid for delivering elementary school science course content with the aim of enhancing student learning processes and outcomes. Through playing the proposed card game, students can familiarize themselves with appearance, features, and foraging behaviors of insects. The system records the actions of students, enabling teachers to determine their students' learning progress. In this study, 37 students participated in an assessment experiment and provided feedback through questionnaires. Their responses indicated that they were significantly more motivated to learn after playing the game, and their feedback was mostly positive.

**Keywords :** game-based learning, learning motivation, teaching aid, augmented reality

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