ENHANCING JAPANESE VOCABULARY ACQUISITION WITH AI-GENERATED MUSIC: A NOVEL APPROACH

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Abstract

The potential of music to activate the brain and enhance learning has been widely recognized (Mogi, 2008), yet its application in Japanese education remains underexplored. Grammatical errors in popular songs can mislead students, and the need for specialized knowledge to create educational songs poses a challenge for teachers (Liu, 2023). AI music generation technology offers a convenient solution by creating songs tailored for educational purposes. While its benefits in English education have been demonstrated (Takano, 2024; Liu, 2024), its effectiveness in Japanese education still requires further research. This study conducted a two-week empirical investigation with 16 first-year Japanese major students from a university in Weifang City, Shandong Province, China, divided into an experimental group and a control group, each with 8 students. The experimental group was taught

using AI-generated Japanese songs, while the control group continued with traditional methods. Results indicated significant improvements in vocabulary retention and comprehension in the experimental group, with more stable and lasting learning outcomes. There was a significant difference in scores between the experimental and control groups (p < 0.05). The study confirms the substantial potential of AI-generated songs to enhance Japanese vocabulary learning, particularly by increasing student engagement and motivation. These findings suggest that AI-generated music could be a valuable addition to traditional language learning methods, leading to more effective and enjoyable educational experiences. We recommend further research with larger sample sizes and more diverse educational contexts to fully realize the benefits of AI in language education and to explore its application across different learning environments.

Keywords: