Game-Based Learning for Classical Chinese: A Theory-Driven Multi-Endings Narrative Design in the Age of AI

Keywords

game-based learning, serious game, narrative skills, classical Chinese

INTRODUCTION

Learning classical Chinese is essential for promoting and preserving traditional culture while enhancing students' appreciation and writing abilities. However, due to the unique grammatical structures and wording of classical Chinese, improving students' engagement in the classroom remains a pressing challenge that requires innovative teaching approaches (Chi & Chiou, 2015). Fortunately, the rise of digital tools has provided new avenues for the preservation, teaching, and promotion of classical culture.

Game-based learning (GBL) is increasingly popular in modern classrooms because of its immersive (Chen et al., 2016), interactive, and student-centered nature (Prensky, 2001). A context-specific GBL approach allows to simulate a more engaging and comprehensible learning environment for students (Lin et al., 2018). Serious game, therefore, is a GBL adaptation theory specifically proposed for literary materials (Abt, 1970). Currently, many teachers choose to use AI-generated images to create teaching materials, which can incorporated into courseware for classical Chinese games designed. By simplifying the process of visualizing difficult ideas and enhancing the interactivity of learning materials, AI-generated images significantly reduce the challenges teachers face in both instructional design and game development. (Bai et al., 2025).

However, GBL research in China largely focuses on STEM and EFL fields (Wu & Lu, 2023), with limited applications in literature. This study addresses this gap by proposing technical solutions for gamifying classical Chinese texts, using *The Peach Blossom Spring* (桃花源记) as a case study. A 2D multi-endings Unity game was created, incorporating AI-generated visuals to align well with educational goals. This study identifies key challenges in gamifying narrative texts, including maintaining thematic integrity, managing cognitive load, and aligning exploration freedom with educational objectives. This study contributes to the theoretical foundation of GBL in humanities education and provides practical design principles for classical cultural heritage preservation, teaching, and promotion.

BIBLIOGRAPHY

"Abt, Clark C. Serious Games. New York: Viking, 1970, 176 Pp., \$5.95, L.C. 79-83234." *The American Behavioral Scientist (Beverly Hills)* 14, no. 1 (1970): 129–129. doi:10.1177/000276427001400113.

Bai, Jie, Xiulan Cheng, Hui Zhang, Yihang Qin, Tao Xu, and Yun Zhou. "Can Al-Generated Pedagogical Agents (AIPA) Replace Human Teacher in Picture Book Videos? The Effects of Appearance and Voice of AIPA on Children's Learning." *Education and Information Technologies* 30, no. 9 (2025): 12267–87. doi:10.1007/s10639-025-13328-8.

Chen, Hong-Ren, and You-Shiuan Lin. "An Examination of Digital Game-Based Situated Learning Applied to Chinese Language Poetry Education." *Technology, Pedagogy and Education* 25, no. 2 (2016): 171–86. doi:10.1080/1475939X.2015.1007077.

Chi L. C., and Chiou, G. F. "Chinese teaching, reading comprehension, classic Chinese reading, reading process." *Journal of Chinese Language Teaching* 12, no. 2 (2015): 51-74.

Lin, Chi-Jen, Gwo-Jen Hwang, Qing-Ke Fu, and Jing-Fang Chen. "A Flipped Contextual Game Based Learning Approach to Enhancing EFL Students' English Business Writing Performance and Reflective Behaviors." *Educational Technology & Society* 21, no. 3 (2018): 117–31.

Prensky, Marc. "Digital Game-Based Learning." *Computers in Entertainment CIE*. New York: Association for Computing Machinery, 2003. doi:10.1145/950566.950596.

Wu Q., and Lu Z. "Yansu youxi yanjiu de zhishi tupu: licheng , redian yu qushi[Knowledge Mapping of Serious Game Research: Progress, Hotspots, and Trends]." *Nanjing yishu xueyuan xuebao (meishu yu sheji ban)* 1, (2023): 58–65. https://doi.org/10.3969/j.issn.1008-9675.2023.01.012