

教育科學研究期刊 第五十五卷第二期

2010 年，55 (2)，167-206

## 影響數位遊戲式學習行為與學習遷移成效之 因素探討

蔡福興

高雄市立空中大學  
科技管理學系  
兼任助理教授

游光昭

國立臺灣師範大學  
科技應用與人力資源發展學系  
教授

蕭顯勝

國立臺灣師範大學  
科技應用與人力資源發展學系  
教授

### 摘要

近年來，數位遊戲式學習 (Digital Game-based Learning, DGBL) 已逐漸受到數位學習 (e-Learning) 的重視，但根據過去的一些研究發現，數位遊戲式學習者常會出現逃避學習的行為，且在數位遊戲式學習的成效上似乎也充滿不確定性。本研究以 8 位國小學生為研究對象，透過質性為主的個案研究，經實地的觀察與訪談，深入分析影響數位遊戲式學習行為的因素，並探討影響學習者的遠遷移成效之因素。研究發現，本研究所採用的教育性線上遊戲雖可促使學生主動學習，但也會伴隨著不認真學習、逃避學習及錯誤嘗試學習等行為的產生，而其主要原因則受到遊戲的設計及學習者特質的因素影響。此外，數位遊戲式學習者於 Bransford 及 Schwartz (1999) 觀點的遠遷移測驗表現上則受其知識獲取成效、學習能力及學習動機等因素的影響。

關鍵字：數位遊戲式學習、學習行為、學習成效、學習遷移

---

通訊作者：蔡福興，E-mail: 89071002@ntnu.edu.tw

收稿日期：2009/02/12；修正日期：2010/01/05、2010/03/12；接受日期：2010/03/29。

Journal of Research in Education Sciences

2010, 55(2), 167-206

# Exploring the Factors that Influence Learning Behaviors and Learning Transfer in Digital Game-Based Learning

Fu-Hsing Tsai

Department of Technology Management,  
Open University of Kaohsiung  
Adjunct Assistant Professor

Kuang-Chao Yu

Department of Technology  
Application and Human Resource  
Development,  
National Taiwan Normal University  
Professor

Hsien-Sheng Hsiao

Department of Technology Application and  
Human Resource Development,  
National Taiwan Normal University  
Professor

## Abstract

Digital Game-based Learning (DGBL) has recently received an increasing amount of attention in the e-Learning community. Research has shown that some of the problems associated with DGBL include students avoiding learning and difficulties documenting if this learning approach is effective. The study utilized a case study approach to ascertain what factors affect learning behavior and learning transfer. Eight sixth-grade students were observed and interviewed. The results showed that the digital games not only promoted active learning but also elicited other more negative learning behaviors such as avoiding the learning materials, utilization of trial and error, and a lack of concentration. These different behaviors were influenced by a game's design and student characteristics. Moreover, we found that the extent of knowledge acquisition, learning ability, and learning motivation were the key factors affecting the performance of Bransford and Schwartz's (1999) view of far transfer.

**Keywords:** digital game-based learning, learning behavior, learning effectiveness, learning transfer