

數位遊戲競賽式學習於商管專業課程之應用與學習成效研究

THE APPLICATION AND LEARNING EFFECTIVENESS OF DIGITAL GAME-BASED LEARNING IN BUSINESS AND MANAGEMENT COURSES

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摘要

本研究之主題在於應用數位遊戲競賽式學習(Digital Game-based Learning, DGBL)的方式，配合既有問題導向式學習法(PBL)的教材與教法，結合實體與虛擬化方法，模擬真實企業之間的資訊與營運流程，以提升課程學習的趣味性及團隊合作，透過高度即時性的線上營運平台，讓學生理解企業流程與 ERP 等資訊系統在企業獲利與成本管控上的具體影響，並由團隊競賽引導學生思考如何從執行面與策略面，提升獲利與降低成本，以提升營運績效，並獲得更好的競

賽成績之餘，達成寓教於樂的效果。位於澳洲的 MonsoonSIM 公司，依循體驗式學習與商業流程教學，開發企業經營模擬網頁式平台，以線上即時體驗實境操作，包含十三個功能性部門的企業流程與決策，本研究應用於供應鏈管理與企業資源規劃跨領域學分學程等兩門課程中，並利用評量問卷統計自信心評量、知識評量、及模擬情境滿意度評量三個構面的學習成效。

關鍵詞：數位遊戲競賽式學習、企業資源規劃、供應鏈管理

ABSTRACT

The theme of this research is to apply the Digital Game-based Learning (DGBL) method, with existing problem-based learning (PBL) teaching materials, combined with physical and virtual methods, to simulate the information and operation processes between real enterprises, so as to enhance the fun and teamwork of course learning, through a highly real-time online operation platform. Let students understand the specific impact of enterprise processes and ERP and other information systems on enterprise profitability and cost control, and guide students to think about how to improve profits and reduce costs from the implementation and strategy aspects, so as to improve operational performance and obtain better competition results, and achieve the effect of edutainment. MonsoonSIM Company, located in Australia, follows experiential learning and business process teaching, develops a business operation simulation platform, and experiences real-time operation online, including enterprise processes and decision-making in thirteen functional modules. This research is applied to two courses, and uses the questionnaire to evaluate the effectiveness of three dimensions: self-confidence assessment, knowledge assessment, and simulated situation satisfaction evaluation.

Keywords: Digital Game-based Learning (DGBL), Enterprise Resource Planning, Supply Chain Management