

## 摘要

隨著網際網路的快速發展，網路資源對於支援數位學習的重要性正與日遽增。本研究旨在探討學習者在利用專題式學習的網路學習歷程中，使用台灣百年圖書館史數位圖書館(經組織後的資源)以及網路搜尋引擎(開放式、未經組織整理的資源)的數位資源之學習歷程及學習成效差異。藉以探討數位典藏資源對於支援專題式學習的優點與特質，並歸納數位典藏資源支援專題式學習模式的價值與定位，以提出發展數位典藏資源支援數位學習模式之建議與參考。

本研究在研究實證部份將學習者劃分為實驗組與控制組，分別使用前述兩種不同組織方式的數位資源進行專題式學習。經由學習者學習活動而產生的電腦歷程紀錄、作業成果及問卷分析等，透過統計分析了解不同組織方式的數位資源對於學習者解決專題式學習任務的影響，進而驗證數位典藏資源支援專題式學習的價值與定位。

本研究獲得以下幾點結論：1、數位典藏資源在支援專題式學習模式上，相較於網際網路中開放式資源具有較高的學習成效；2、對於學習者輔以不同組織方式的資源進行專題式學習而言，數位典藏資源較開放式網路資源具有較高的資源使用滿意度；3、數位典藏資源在支援專題式學習過程中，相較於開放式網路資源，對於知、行、思三階段學習中的「行」階段具有較明顯的助益；4、在支援專題式學習歷程中，相較於 Google 開放式網路資源，數位典藏資源應提昇資料檢索效能，以增加學習者的使用意願。

關鍵字：數位典藏、數位圖書館、數位學習、數位典藏支援數位學習、專題式學習

## Abstract

With the rapid development of the Internet, how to apply Internet resources to support e-learning is becoming a more and more important issue in the e-learning field. Therefore, the study mainly focuses on assessing the differences of learning processes and performance of learners who respectively use the digital resources from Taiwan libraries' history digital library (structured digital resources) and Google search engine (open ended and unstructured digital resources) to perform problem solving learning for a same target subject via the project-based learning mode. The study aims at exploring the advantages and characters of using digital archives to support project-based learning and proposing conclusions and suggestions that are helpful to using digital archives to support e-learning.

The study adopted the quasi-experimental design method to separate all participators into the experimental and control groups in order to evaluate the differences of learning processes and performance of learners who respectively use different digital resources to perform project-based learning processes. The statistics analysis scheme was employed to evaluate the learning performance of learners who perform project-based learning supported by different digital resources based on learning processes, project-based learning outcomes, and questionnaire investigation. Based on the research outcomes, the study confirms the value of digital archives in terms of supporting the project-based learning, and further indicates the role-playing of digital archives in supporting e-learning.

The study obtains the following conclusions: 1. The learning performance of the experimental group learners who perform project-based learning processes supported by digital archive resources is superior to the control group learners who perform project-based learning processes supported by search engine resources; 2. The learning satisfactory degree of the experimental group learners who perform project-based learning processes supported by digital archive resources surpasses the control group learners who perform project-based learning processes supported by search engine resources; 3. Compared to the search engine resources, the digital archive resources obviously provide benefit in the action procedure in the proposed project-based learning mode with three learning procedures; 4. Compared to Google search engine resources, performing project-based learning supported by digital archive resources should enhance search performance to promote the user's willingness while using digital archive to support e-learning.

Keyword : Digital Archive 、 Digital library 、 E-learning 、 E-learning supported by digital archive 、 Project-based learning