進階型多功能網路評量與試後分析系統(WATA)的發展與設計
Design and Development of a Multifunctional Web-Based Assessment and Test Analysis System (WATA)

王子華; 王瑋龍; 王國華;黃世傑

中文摘要

本研究擬融合傳統評量理論以及最新的網際網路互動與資料庫技術，開發一套網路評量系統（WBT, Web-Based Test)-WATA 系統（Web-based Assessment and Test Analysis System）。該系統具有 Triple-A(Assign、Apply、Analysis)架構，擁有高效率之(1)考試管理引擎可以讓教學者管理考試行程，(2)應考引擎可以讓教學者掌握應考者的考試,(3)試後分析引擎可以在幾秒鐘之內分析出所有試後分析的資訊，這個 Triple-A 架構的 WATA 系統可以讓網路評量的效果發揮得比傳統紙筆測驗好，因為藉著電腦與網路強大的資料處理能力，更可以達成評量之「診斷學生學習情形與提供教師教學參考」的功能。

關鍵字：評量; 電腦評量; 網路評量

Abstract

In this research, we tried to integrate the classic assessment theory and the latest Internet database technology to develop a multifunctional Web-Based Test system (WBT)-"Web-based Assessment and Test Analysis System (WATA)". The WATA system had followed with the Triple-A Module (Assign, Apply, Analysis), and moreover the WATA system had designed with powerful (1)administrating engine for teachers to manage their testing (2)applying engine for students to take tests (3)analyzing engine for teachers to analyze the test result and get the useful Test Analysis data. Because the WATA system is under Triple-A Module and equipped with powerful data analysis ability, it would be easy for teachers to diagnose students' learning and to improve teachers' teaching strategy.

Key words：Assessment; Computer-based test; CBT; CAT; Web-based test; WBT; WATA; Web-based assessment and test analysis system