

資料導向決定的教學介入與學生學習成效之研究

—以資訊科技融入教學為例

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摘要

本研究旨在瞭解資料導向決定的教學介入對學生學習成效的情形。先用文獻分析法，探討資料導向決定教學介入的意涵及實施步驟。其次透過資訊科技融入教學策略，運用資料導向決定教學介入的實施步驟，進行實驗教學。以國中三年級學生為研究對象，透過學習成效評量、學習回饋單及學習滿意度問卷，蒐集資訊，探討資料導向決定的教學介入策略對學生學習成效的影響。獲致以下結論：

一、 資訊科技融入教學策略研究結果與發現

- (一) 選擇教學媒體要注意媒體的實際效果，不能盲目求新，教學應該把重點、注意力放在教學效果上，而不是媒體是否先進上，應該根據各個教學要素的不同情況，選擇相對最佳的教學媒體。
- (二) 應該重視多種媒體的組合教學，根據教學內容和教學目標的需要以及各種媒體的特性，揚長補短、互為補充、有機結合，充分發揮整體功能大於各個部分之和的作用，達到教學效能。

二、 資料導向決定的教學介入對學生學習成效的影響

- (一) 資料導向決定教學介入策略，可以藉著資料呈現與佐證，得知資訊科技融入教學與學生學習成效是有影響的。
- (二) 以資訊科技融入教學為例，透過資料導向決定的教學介入的步驟實施教學，可以找出最好的教學策略與組合，提升學生的學習成效。

關鍵字：資料導向決定、資料導向決定的教學介入、資訊科技融入教學

Abstract

This research aims to explore students' learning effects by the intervention of "Data-driven decision-making". First of all, this study utilizes text analysis method to examine the meaning and steps of "Data-driven decision-making". Secondly, by the intervention of "Information Technology Integrated Instruction" strategy and exert "Data-driven decision-making", experimental instructions are proceeded. Taking junior high school third graders as research objects, this study uses learning evaluations, learning feedback sheet, and learning satisfaction questionnaire to collect information in order to discuss the influence of "Data-driven decision-making" on students' learning.

- A. The outcome and findings of Information Technology Integrated Instruction strategy.
 - a. When selecting teaching media, the focus should be on the actual effects of media, rather than on the quest of the latest. Teaching should emphasize on teaching effects, not on the advance of media. Also, teaching should be adjustable depending on the teaching factors to choose the best teaching media.
 - b. Assembled teaching of multi-media should be emphasized according to teaching contents and objectives so as to use the characteristics of media. Taking their advantages to supplement each other to achieve organic unity. This will function as a whole rather than as sums of parts to achieve teaching effectiveness.

- B. The influence of Data-driven decision-making on students' learning.
 - a. The intervention of "Data-driven decision-making" can be proven effective by data presentation and evidence.
 - b. Taking "Information Technology Integrated Instruction" as an instance, exerting Data-driven decision-making can help to find out the best teaching strategy and combination to elevate students' learning effects.

Key Word: Data-driven decision-making 、 The intervention of Data-driven decision-making 、 Information Technology Integrated Instruction