

互動式電子白板融入數學教學對學習所產生的生理反應之研究

陳韻聰, 石晉方

營建管理學系

建築與規劃學院

shrj@chu.edu.tw

摘要

Traditional instruction, commonly used at school, helps teachers systematically impart knowledge, concepts and principles to students. Interactive Whiteboard (IWB) integrates multi-media to promote learning efficiency and improve students' attention and interaction with their teacher. Based on Basic Study Manual of L. Ron. Hubbard (2000), learning without real objects would lead to ten negative physical responses. The study aimed to discuss the influence of traditional instruction and IWB instruction on physical responses respectively. A math class was videotaped to analyze which instruction could alleviate the negative physical responses caused by learning and could improve the grades of math achievement tests.

The results, after conducting teaching experiments and statistical analysis, were compiled as follows:

1. Learners had fewer physical responses and paid more attention in class after switching traditional instruction to IWB instruction.
2. Learners scored significantly higher in math achievement tests after the application of IWB.
3. The score in the physical responses scale was obviously lower after IWB was implemented.

關鍵字 : interactive whiteboard, math achievement test; physical response