

探討互動式電子白板減少學習所產生生理病痛之研究

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摘要

Abstract

Interactive Whiteboard (IWB) integrates multi-media to promote learning efficiency and improve students' attention and interaction with their teacher. Users simply touch the screen in using the device. These advantages have gradually made IWB more common in elementary education. The study aimed to discuss if IWB in math class could help reduce physical illnesses caused by learning. According to L. Ron. Hubbard (2000) and the ten physical illnesses due to learning mentioned in his book, Basic Study Manual, a class was videotaped to record the physical illnesses caused by learning. The ten physical illnesses were feeling squashed, bent, sort of spinning, bored, exasperated, having headaches, stomachaches, irritation in eyes, feeling dizzy and sort of dead. The study compared IWB and traditional instruction, with a fifth class in an elementary school in Taichung being the subjects. Math achievement tests and physical illness scale were used as testing tools to explore whether IWB could reduce more physical illnesses than traditional instruction.

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

1. Learners had fewer physical illnesses 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 illness scale was obviously lower after IWB was implemented.

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