Chapter 12

The Effects of Videoconferenced Distance–Learning Instruction in a Taiwanese Company

Chin-Hung Lin
Chung Chou Institute of Technology, Taiwan

Shu-Ching Yang
Aletheia University, Taiwan

ABSTRACT

Distance learning, where instruction is given to students despite wide separations of students and teachers, is increasingly popular. Videoconferencing, which is examined in this study, is a distance learning mode of featuring real-time interaction of students and teachers and provides sequence, real-time, vision, and actual interaction. This study focuses on learning achievement compared to that of face-to-face instruction at one fixed location. It investigates the interrelation of learning achievement, gender, emotional intelligence, and motivation. Statistical techniques are used to analyze and evaluate the data. The subjects were divided into a target group and control group. The findings were that learning achievement was similar for videoconferencing and traditional face-to-face instruction. It showed a significant relationship between emotional intelligence and learning achievement. An implication is that a judicious embedding of emotional intelligence consideration in the design and implementation of videoconferencing courses might enhance learning achievement.

INTRODUCTION

Distance learning is an increasingly popular method of providing instruction. It provides the benefit of enabling widely geography dispersed students to tape courses. The students and teacher can be remotely located from each other and get interact (Bates, 2005). It offers accessibility, convenience and cost effectiveness. A specific method of distance learning is videoconferencing. This mode is distinguished by the fact that it brings together...
students and teacher synchronically, usually and aurally. Its real-time interaction creates a sense of immediacy and social presence and promotes active participation and motivation (Gillies, 2008). Because it is relatively new, videoconferencing has not yet been adequately researched. Although videoconferencing has distinguishing features, it also shows many characteristics in common with others modes of distance learning. For this reason, references have not been limited to articles based exclusive on videoconferencing.

This study dealt with a videoconferencing course offered to a group of its workers by a Taiwanese private company. The course had an instructional approach (Bender, 2003; Kumpulainen & Wray, 2002; Salmon, 2003). The primary purpose of this study was to examine the effectiveness of this course in term of learning achievement and to compare that learning with learning derived from courses using face to face instruction at a fixed brick and mortar site. The study also investigated the interaction of various factors, including gender, emotional intelligence components, and motivation, both singly and in combination. The Theoretical Framework section conducts a literature review and tests five Hypotheses based on the factors just mentioned. The Method section details the parameters of the study and how the study was done. The Data Analyses and Results section provides the results, including the acceptance and rejection of the Hypotheses. The Discussion furnishes the rational for judging the Hypotheses and compare. This study results with those is comparable study. The Conclusion states majors’ conclusions and implications.

**THEORETICAL FRAMEWORK**

**Distance Learning**

Distance education connects teaching and learning at a distance but also “correctly describes a two-sided relationship” (Moore & Kearsley, 2005, p. 2). Research into the growth and spread of distance learning has been researched by Waits and Lewis (2003). Distance learning has become closely associated with the Internet. Research done on Web-supported learning is relevant in the context of distance learning (Yang & Liu, 2007). Gillham, Buckner, and Butt (1999) conducted a user-centered investigation of web-supported learning at a University College in Edinburgh, Scotland. Gillham, Buckner, and Butt (1999) concluded that the site was highly successful in introducing students to Web-based instructional material. Studies to date have not been comprehensive or homogenous and have been based on incomplete data, making it difficult to draw firm conclusions as to whether or not instruction via distance learning is better than, equal to, or worse than traditional classroom instruction (Lou, Bernard, & Abrami, 2006). Hughes (2002) and Song (2006) found students in distance learning courses to have higher average grades compared to students in the traditional course.

**Learning Achievement and Distance Learning**

The electronic communication aspect, which has become widely associated with distance learning, was broadly encompassed in a study by Keene and Cary (1990), which included video teleconference, audio-graphic, and computer teleconferencing. In their study, learner achievement was superior to that of students taught conventionally. A similar result was obtained from a study by Sounder (1993) involving the use of satellite delivered television. Rosenfeld (2005) conducted a study involving two-way interactive internet. The result showed that the internet students’ learning achievement was similar to that of students in a traditional classroom. Research such as this has often included very large numbers of studies such as the 355 sources in the case of Russell (1999) and several meta-analyses. The body of evidence is huge, and justifies the overall conclusion that
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