

Teachers' Perceptions on the Conditions Facilitating the Use of Computers in Teaching Mathematics

ABSTRACT

Past studies have identified several obstacles that hinder the use of technology in instruction by school teachers. What conditions will help teachers overcome these obstacles and thus facilitate the use of technology in instruction? Ely (1999) proposed eight conditions that facilitate the utilisation of technological innovations in various education related contexts: (a) dissatisfaction with the status quo, (b) presence of knowledge and skills, (c) availability of resources, (d) availability of time, (e) rewards or incentives existing for participants, (f) participation is expected and encouraged, (g) commitment by those who are involved, and (h) leadership is evident. Using the conditions as a framework, a survey was conducted to determine the presence or non-presence of the conditions that facilitate the use of computers by mathematic teachers in Malaysian secondary schools. Ninetyseven mathematics teachers who use computers in their instruction were involved in this study. The results indicated that all of the conditions proposed by Ely (1999) were present in the schools. However, the condition of "commitment by those involved" was found to be the most prevalent while the condition "rewards or incentives existing for participants" was the least prevalent. The findings of the correlation analysis among conditions suggest that strong relationships exist between some of the conditions, such as "knowledge and skills" with "participation", "participation" with "commitment" and "commitment" with 'leadership'.

Keyword: obstacles; used technology; teacher; teaching; mathematic