

The Effect of Music on College Students' Stress Level and Cognitive Performance – Perceived Pleasantness of Music Makes the Difference

Tsz-chung Ronald Chan

The University of Hong Kong, Hong Kong, China

Ricky Van-yip Tso

The University of Hong Kong, Pokfulam, Hong Kong

Abstract

Prior research on the effects of acoustic music on stress reduction and cognitive performance has produced inconsistent results. This study investigated this relationship by conducting a within-subject experiment involving fifty five college students. The experiment involved playing acoustic music during assessment tasks and measuring changes in perceived stress levels and cognitive performance in music and non-music conditions. Results showed no significant one-way impacts of acoustic music on stress levels or cognitive performance. However, the effect of music on stress levels mediated the relationship between perceived pleasantness of the music and change in cognitive performance in response to music. Listening to liked music may reduce stress, improving performance, while disliked music may increase stress to an optimal level, facilitating performance. Thus, the effect of music on performance depends on individual perceived pleasantness of the music. This study has implications for selecting music for specific purposes, such as relaxation or cognitive enhancement.