

THE EFFECTS OF COMPLEX MUSICAL EXPERIENCE ON THE MENTAL REPRESENTATION OF MUSIC

José Carlos Godinho

Escola Superior de Educação – Instituto Politécnico de Setúbal, Portugal

Background

With the connectionism theory as a background, this study suggests that musical memory relies on complex mental links, which depend on the complexity of the musical experience. In other words, it is argued that children who engage in musical activities which favour varied participation and multiple encoding tend to preserve stronger images of music (with diverse types of information distributed through the brain) than they would do in less complex or more focussed activities.

Aims

The study is, thus, concerned with the effects of complex musical experiences on the strength and organisation of the mental representation of music in Portuguese children of 10/11 years old. The analysis is focused on the context of listening to recorded music in the classroom, with particular regard to strategies of listening through participation. Playing-rhythms-along-with-recorded-music within an instrumental group (Audience-Performing) is therefore the main context of analysis.

Method

An experiment compares two listening conditions with different levels of complexity. A control group (Audience-Listening) listens to a recorded piece of music and follows a rhythmic map. The experimental group (Audience-Performing) listens to the same piece, follows the rhythmic map and plays the rhythms along with the music. After the treatment, both groups are tested on the identification of excerpts from the musical piece, which gives evidence of both the strength and the organisation of the mental representation.

Results

As shown by the results of a *t-test* used to compare the score means of both groups ($t = 8.79$; $p < .01$), the experimental group identifies more excerpts with statistical significance.

Conclusions

The experiment suggests that (complex) situations where children have to attend to several tasks, such as reading, listening and playing tend to favour a differentiated mental representation, which has positive effects on musical memory, both in strength and organisation.