

THE EFFECTS OF COMPUTER-MEDIATION AND PHYSICAL SPACE ON COLLABORATIVE MUSIC COMPOSITION

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Background

Previous studies have investigated the effects of computer-mediated scientific problem-solving tasks in relation to the same task performed in non-computer environments. Other previous studies have also investigated the effects of collaboration during music composition tasks. Few, if any, have investigated the effects of collaborative music composition in relation to computer-mediation and physical/cross-cultural environment.

Aims

This study aims to reveal differences in modes of communication, composition strategies adopted and the impact upon the resulting compositions, when adolescents engage in the same collaborative music composition task in three separate environments: 1) non-computer based composition in the same physical space, 2) computer-based composition in the same physical space and 3) computer-based composition via email across two cultures.

Method

In the first two conditions adolescents worked in pairs in the same physical space to compose a musical piece using either typical 'classroom instruments' or a musical keyboard linked via MIDI to a computer with a researcher-modified

music composition program installed. In the third condition, adolescents worked in a school in the UK with similar computer-based equipment and collaborated with adolescents in Norway also using similar computer-based equipment. Collaboration during composition took place via email facilitated by a researcher-developed computer-based composition program that enabled full email communication of both the music and interactive dialogue. In the first two conditions the collaborative composition process was captured by videotape recordings and in the third condition by videotape recordings and copies of emails exchanged by the participants.

Results

Results revealed differences in the modes of communication, composition strategies adopted, and in the compositions produced in relation to the 'environment' the pieces were composed in.

Conclusions

If potential advantages for global collaboration in cross-cultural music projects are to be accessed we must be aware of the effects that technology can have on the process and the product of such collaboration. More research into this area will be required in the future.