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Presented at the North Carolina Music Educators' Conference

Research Poster Session, November 12 - 14, 2006

Using the iPod to Facilitate Critical Thinking and Music Listening

Abstract

Introduction:

The purpose of this study was to investigate the difference resulting from listening to an assigned music playlist via iPods as measured by the written descriptions of music provided by undergraduate non-majors in a music fundamentals course. In previous studies (Johnson, 2003), a significant difference was associated with students' written responses to music listening examples as a result of repeated music listening, critical thinking instruction, and traditional instruction in musical terms and concepts. In this study, the effect of assigned music listening was isolated from regular classroom instruction using iPod technology. This study is an extension of earlier research on music listening involving fifth-grade students and a constructivist approach emphasizing critical thinking.

To undertake this investigation within the curriculum of a basic studies course, the author partnered with his university's technology division and two other professors for the first iPod project on campus. The students' use of iPod's for listening assignments as an essential part of an innovative pedagogical approach: to encourage students to combine thinking skills with repeated listening experiences. The pedagogical framework for the current study included three elements common to both the treatment (iPod) and control (non-iPod) groups: instruction in musical terms and concepts, participation in responding activities, and classroom discussions. In addition, the treatment group performed repeated music listening via iPods. This approach to music listening is based on Stauffer's Listening Sequence (cited in Campbell & Scott-Kassner, 2006). While the focus on critical thinking questions as an outcome measure is supported by a constructivist approach to music listening (Johnson, 2006).

Participants:

The participants in this study ($n = 152$) were undergraduates enrolled in "Exploring Music," an introductory course in music fundamentals with an experiential approach. Course activities include music listening, active music making, and instruction in traditional musical terms and concepts. The course is designed for non-music majors and is regularly taught to multiple sections. Students who chose to participate in the current study signed an Informed Consent agreement, which was approved by the university's Institution Research Board.

Methodology:

From multiple sections of “Exploring Music,” seventy-two (72) students were randomly selected and given an iPod with instructions to listen to a given playlist fifteen times (once per day, five days a week, for three weeks) during a three-week period. Simultaneously, eighty (80) students participated in the non-iPod group and served as a control. The musical selections in the play list represented the music listening examples used in the textbook for the fundamentals course in which the students were enrolled. Students in both the treatment (iPod) and control (non-iPod) group completed “Listening and Thinking,” (Johnson, 2003) a written measure of critical thinking in music as a pretest and posttest. The students’ responses were categorized and tabulated using a word-count methodology. Students received four response scores: a Musical Term, an Affective, an Associative, and a Total response score. The author controlled for any teacher effect by distributing an equal number of iPods to students in each class section on a rotating basis. In addition, the number of repetitions was recorded as a covariate to control for the amount of the assigned music listening actually performed by each student.

Findings:

The author performed a two-way multivariate analysis of covariance (MANCOVA) on the students’ written response scores. No statistical differences were found to indicate that students’ use of iPods was associated with any significant change in written response scores from pretest to posttest or by group (iPod vs. non-iPod). Although the use of iPods was anecdotally associated with heightened student participation and achievement, the students’ iPod use did not quantitatively demonstrate any significant increase in students’ written responses to music listening examples.

While music listening is an inherently valuable activity to reinforce and promote musical understanding (Hartshorn, 1957; Madsen & Madsen, 1998), merely listening to music to augment class activities did not result in any significant change in students’ written descriptions of music. Future uses of the iPod to facilitate student learning could include audio summaries of lectures and explanations incorporating musical examples, and video demonstrations of musical concepts and terms. Directions for further research include de-emphasizing the “gimmick” factor of popular technology in favor of promoting critical thinking through interactive multi-media resources and redesigning the listening activities to have a stronger connection to the classroom discussions.

References:

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