

Musichemistry on Grade Eight Learners' Motivation, Engagement and Proficiency in Chemistry

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Abstract

Purpose- This study reports the integration of a music - based teaching tool “musichemistry” and determine whether this music - based teaching strategy places a significant influence on the motivation, engagement and proficiency of the learners in Chemistry.

Method- The quasi-experimental pre-test – post-test with two match-paired groups design was employed in this study (David, 2002). Prior to the conduct of research, the chemistry songs, with existing tunes rewritten with new lyrics to teach and explain chemistry-related concepts through verse was developed by the researcher and undergo content validation by experts. The following steps were done during the conduct of the study: (1) preparation (including validation and pilot-testing) of research instruments; (2) secured permission from the school head of the research site and waivers from parents of the subjects; (3) administered the pre-tests to 100 prospective subjects; (4) did match-pairing based on the pre-test result of the chemistry proficiency test to choose the final participants of 30 pairs or 60 individuals; (5) randomly assigned the MBT and NMBT groups; (6) implemented the six-week intervention; (7) administered the post-tests to 60 subjects, 30 per group; (8) conducted focused group discussion; and (9) analyse the data using appropriate statistical tools and thematic analysis.

Findings- Based on the findings, it showed that integrating musichemistry as a teaching tool in teaching chemistry lessons improved the motivation, engagement, and proficiency of learners in learning chemistry than those taught without music. These songs become “earworms” to their head that helped them recall concepts easily as they took the formative, summative, and quarterly assessments. Integrating music in the teaching of chemistry created a positive and engaging environment for learners to learn chemistry. Learners also showed positive attitude and excitement to learn new chemistry songs in every lesson.

Significance- Musichemistry offers not only as an innovative teaching tool but also an avenue for inclusion in the science curriculum. Textbook writers may integrate content-based songs in chemistry textbooks to help facilitate the understanding of chemistry concepts, especially those challenging topics in chemistry. In this new normal, musichemistry teaching approach may be used to teach chemistry lessons through blended learning.

Keywords: Motivation, Engagement, Proficiency, Musichemistry, Music-based teaching, Chemistry.