Abstract

This research aimed to develop and validate lesson exemplars that integrated the arts, particularly music and the visual arts in teaching mathematics. Further, it looked into the effectiveness of integrating the arts in teaching mathematics in terms of improving the interest, retention, and performance of students.

The experimental method was used in comparing and determining the effectiveness of the two sets of lesson exemplars used in teaching Fundamental Operations on Integers and Simplifying Algebraic Expressions – the Arts Integrated Lesson Exemplars and the Traditional Lecture Method Lesson plans.

Seventy-two (72) Grade 7 students enrolled in the Special Program in the Arts of the Ilocos Norte National High School in Laoag City, Ilocos Norte served as the samples. These were divided into: the experimental and the control groups. The experimental group was composed of 37 students who were taught with the arts – integrated lesson exemplars, and the other was the control group which was taught with the traditional lesson plans.

The study was also guided by the research and development method following the ADDIE model and designed according to the phases of the model: Analysis, Design, Design Development, Implementation, and Evaluation. The questionnaires and lesson exemplars were developed by the researcher and validated by experts in the fields of mathematics, arts, and guidance counseling.

Data were gathered through the use of the three instruments: (1) the checklist for validation of the lesson exemplars; (2) the teacher – made questionnaires on interest and retention validated by licensed guidance counselors; and, (3) the teacher – made Pretest/Posttest on Fundamental Operations on Integers and Simplifying Algebraic Expressions validated by the key teachers in Grade 7 Mathematics of the Ilocos Norte National High School.
Data were interpreted using weighted means and t-tests for correlated samples and t-tests for two independent samples to equate the two groups. In all tests, the level of significance was set to 0.025 probability level.

The results of the study showed that the integration of arts in teaching mathematics is an effective means of igniting interest, increasing retention levels, and improving the performance of Grade 7 students in mathematics particularly in fundamental operations on integers and simplifying algebraic expressions. Thus, the integration of the arts in teaching mathematics should be considered significantly to improve the performance of students in mathematics.