

LEARNING GRAPH CONSTRUCTION: A MOTIVATIONAL TOOL IN MONITORING THE LEARNING PERFORMANCE OF STUDENTS IN COLLEGE ALGEBRA

Abstract

This study attempted to determine the effects of graph construction on the academic performance of students taking-up College Algebra. Several instruments were utilized in the study: the Achievement Test, Assessment Tools, Individual Learning Graph (ILG) and the personal diary known as plus-and-minus notebook. The study was done in three phases. Phase I included preliminaries to actual instruction. A pretest was given and the scores of the respondents under each group were recorded. The mean score for each group was computed. Phase II included the actual graph construction. During this period, the students constructed an individual learning graph representing their scores in the assessments given after the learning experience. The teacher was guided by lesson plans to determine at what stage of the lesson the assignments will be given and when the entry for each point in the learning graph is to be completed. Students wrote reflections on the events which took place and analyzed how those events affected their performance in the class. The plus-and-minus notebook where they wrote their reflection about their learning graph was inspected by the teacher after every lesson was completed. Phase III of the study included the administration of the posttest in which individual scores were obtained. The mean score of students under the same group and the mean gain score were computed. Results show that there is a significant difference in the pretest and posttest scores of the students in all topics using the learning graph construction. Data revealed that more than 90% of the total respondents agree with most of the items in the perception questionnaire indicating that the Learning Graph Construction as a strategy that can develop metacognition among students and in this study was found generally acceptable.

Running Head: Learning Graph Construction; Individual Learning Graph; Achievement Test; Assessment Tools; Plus-and-Minus Notebook

About the Author

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