

ABSTRACT

Action Research as a way to improve teaching and learning Mathematics in a Community College.

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This study used the methodology of Action Research, to determine whether the modification of teaching practice had a positive influence on the learning of the Year 1 students at a certain Community College.

The sample was made up of twenty-one first year (Year 1) students who were pursuing a two year Associate Degree Programme at the College, with mathematics as a major.

The project was begun in Term II when the students pursued an Algebra II course and during Term III, they pursued an introductory Probability and Statistics course.

The investigation was carried out in its naturalistic setting (i.e in a classroom) and the qualitative method was used in the investigation. The

two instruments used in the study were a questionnaire and a semi-structured interview schedule. These instruments were used to gather information about the student's attitudes and perceptions of mathematics. Those interviewed were selected from among those who completed the questionnaire and who had obtained less than a stipulated score.

The Diagnostic Test was administered to the students in the sample to determine whether they could master the skills necessary to pursue the Algebra course, in addition to identifying the errors they were making.

Worksheets were constructed by the researcher and administered to the students in the sample to address any errors identified in their work. Worksheets were also constructed for the second year (Year II) students for the purpose of revision for the upcoming GCE Advanced Level Examination. For the attitude questionnaire, the responses to the questions were all presented and analyzed using descriptive statistics as well as the independent t-test, which was used to determine whether there is a significant relation in the attitudes of the two year groups. Factor analysis was also employed.

The project contained two cycles. In Cycle I, the amount of lecturing time was reduced as well as the amount of homework assigned. The attitude

questionnaire was administered during the cycle. In Cycle II, the pace was appropriately adjusted in order to complete the syllabus. An end of term Algebra test was administered to the students in the sample. The teaching strategy was modified in Term III when the students in the sample pursued an introductory Probability and Statistics course.

The study revealed that there were several areas about which students had concerns. These areas fell under the categories of management, environment, teaching methods, curriculum and perception.