

**PREDICT, OBSERVE AND EXPLAIN (PROBEX)
STRATEGY, AND STUDENTS' PERFORMANCE
IN CHEMISTRY**

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ABSTRACT

Title: PREDICT, OBSERVE AND EXPLAIN (PROBEX)
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This study attempted to find out the effects of predict, observe and explain (PROBEX) strategy on students' performance in Chemistry in Pinaglabanan High School, Goa, Camarines Sur, for the school year 2010-2011. Specifically, this study sought to answer the following problems: (I) What is the proficiency level of the students' performance in Chemistry in the pre-test and posttest who were exposed to PROBEX strategy?

(2) What are the attitudes of students towards Chemistry? (3)

What are the difficulties encountered by the students using the PROBEX strategy? (4) Is there a significant difference in the performance of students taught using PROBEX and the conventional method? and (5) Is there a significant relationship between proficiency level and attitude of students?

The respondents of the study comprise the 43 third year students in the experimental group and 49 for the control group. The non-equivalent (pre-test and posttest) control group design was used in this study. The researcher made use of teacher-made test (pre-test and posttest) as well as the questionnaire checklist in gathering pertinent data. Data gathered were statistically treated through the use of weighted mean, mean, standard deviation, z-test and chi-square.

The following findings and conclusions were yielded: Generally, the proficiency level of students in Chemistry is low for it did not meet the set standard of 75 % cut-off as set forth by the Department of Education. The students had developed an acceptable/positive level of interest and enthusiasm towards the subject.

The resulting statistical inference revealed that the students taught with and without PROBEX strategy both have an

improvement in their academic performance. However, the academic performance of students who are exposed to PROBE* strategy was better than those taught using the traditional teaching approach. Generally, the result of hypothesis testing revealed that the difference was significant, hence students' exposure to PROBEX strategy proved to be effective.

The students had a common felt difficulties in the use of PROBEX strategy but most of them are not so alarming. Their difficulties to express views about the topic can probably be attributed to the poor command of language and/or comprehension.

In the light of the foregoing findings and conclusions the following are recommended: (1) for a more effective development of the skills in the science processes, low achievers may be given special classes/remedial classes to improved their academic performance; (2) in the teachers' methodology field exposure and experiences, team works, group dynamics and other similar activities could be added to the usual classroom lectures; (3) it would be well for science teachers to take stock of their initiative and effort to help students identify their learning difficulties and find solutions to them; (4) similar studies may be conducted but may adopt a longitudinal and case

type of research design which could control many intervening variables, such as interests, abilities and learning styles; and (5) teachers must be sensitive and at the same time responsive to the needs of the students. Teachers' concern on students will help in the development of the latter's positive attitudes towards Chemistry which in turn may bring about improved performance and academic success among students.