

An Investigation into Grade Ten Students' Interest and Competence in Different Sections of the Chemistry Text Book

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Abstract

The purposes of this study are to investigate Grade Ten students' interest and competence in different sections of the chemistry textbook and to analyze the relationship between students' interest and competence in chemistry learning. The design adopted was a descriptive research design. Eight townships were randomly selected from four strata in Yangon Region. One high school from each township was selected by using random sampling technique. The sample in this study consisted of (1220) Grade Ten students. Two instruments, students' interest questionnaire and chemistry competency test for Grade Ten students were employed. Interest is always good reason for action and students are concerned with the possible value or good intrinsic to an action, then the student should follow his interest. Competence is the ability of an individual to do a job properly or achievement. Students' interest questionnaire and Achievement test items were divided into four sections. They are (1) understanding chemistry concepts, (2) formula writing, definitions and equations, (3) applying problem solving abilities and using required mathematical computing and finally (4) applying the relationships of chemistry concepts in real life. The survey was conducted on 5th January, 2015. After the students' interest questionnaire was administered, achievement test was given to explore students' competence in different sections of the chemistry textbook. Descriptive statistics and Pearson product-moment correlation were used in this study. Students are interested in (72.26%) of understanding chemistry concepts, (70.35%) of formula writing, definitions and equations, (73.52%) of applying problems solving ability and using required mathematical computing and (75.15%) of applying the relationships of chemistry concepts in real life. Students' interest in chemistry learning is very satisfactory and they are highly interested in different sections of the chemistry textbook. It was found that students were most interested in applying the relationships of chemistry concepts in real life and they were least interested in formula writing, definitions and equations. The percentage of students' competence are (63.48%) of understanding chemistry concepts, (58.31%) of formula writing, definitions and equations, (60.24%) applying problems solving ability and using required mathematical computing and (72.16%) applying the relationships of chemistry concepts in real life. The percentage of students' competence in different sections of the chemistry textbook is satisfactory. Moreover, the Pearson product-moment correlation was conducted to examine the degree of strength and direction of relationship between students' interest and competence in different sections of the chemistry textbook. Students' interest and competence in different sections of the chemistry textbook were highly related at 0.01 level. Students' interest and students' competence in chemistry learning were positively related to each other. Therefore, the research findings proved that students' competence were highly related to their interest in different sections of the chemistry textbook.

Key words: students' interest, competence, teaching chemistry, correlation.

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