

ABSTRACT

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Key Words: SCIENCE EDUCATION, ACADEMIC PERFORMANCE, LEISURE INTEREST, LABORATORY-BASED METHOD, TEXTBOOK-BASED METHOD, SECONDARY SCHOOL

Name: POONAM YADAV

Thesis Title: A COMPARATIVE STUDY OF ACADEMIC PERFORMANCE AND LEISURE INTEREST IN SCIENCE OF GRADE 10 STUDENTS LEARNING THROUGH LABORATORY-BASED AND TEXTBOOK-BASED METHODS AT ST. JOSEPH HIGH SCHOOL, BARHALGANJ, INDIA

Thesis Advisor: ASST. PROF. DR. ORLANDO RAFAEL GONZÁLEZ GONZÁLEZ

This study was conducted to determine whether there was a significant difference in the gain in academic performance in science, as well as in the gain in leisure interest in science, between Grade 10 students learning under laboratory-based method and those learning under textbook-based method at St. Joseph High School, Barhalganj, India. For this purpose, the researcher designed a quantitative comparative study, and a quasi-experimental research design was implemented, using two conveniently-chosen groups of Grade 10 students from the target school: the 35 students in the experimental group were taught using laboratory-based method, while the 37 students in the control group were taught using the textbook-based method. The duration of the study was four weeks, with a 50-minute session every weekday for both the laboratory-based and textbook-based learning methods during June 2022. For the data collection, the Science academic performance test and the 10-item Students' Leisure Interest in Science Questionnaire were both administered as pre-tests and post-tests, in order to address this research's objectives and hypotheses. The collected data

were analyzed using descriptive statistics and independent samples *t*-tests. From performing descriptive statistics on the collected data, the level of academic performance in Science of Grade 10 students under both treatments, before and after the intervention, was good, while the level of participants' leisure interest in Science was moderate under both treatments, before and after the intervention. From a quantitative comparative analysis, there was no significant difference in the gain in either academic performance or leisure interest in Science between the experimental and the control groups. Based on the research findings, recommendations are provided for students, teachers, school administrators and future researchers.



Field of Study: Curriculum and Instruction

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