



RELATIONSHIP BETWEEN AVAILABILITY OF LABORATORY FACILITIES AND EQUIPMENT AND ACADEMIC PERFORMANCE IN SCIENCE AMONG GRADE 11 STEM STUDENTS

JOHN MICHAEL M. MAGNO

Dr. Francisco L. Calingasan Memorial Colleges Foundation, Inc.

ABSTRACT

The laboratory facilities are lacking in the country, and that raises serious concerns over the effectiveness of science education in the Philippines. Students who do not have access to proper scientific equipment may have a significant gap in their competencies, which can make it difficult for them to pursue careers related to STEM. Nonetheless, not all students can access well-equipped laboratories particularly those who live on far-flung areas; this poses a great concern regarding their ability to comprehend and apply their understanding on real world. Among the several barriers to high-quality science teaching is still the lack of well-equipped labs. Policy implementation, resource allocation, and infrastructure development are considered to solve this problem in order to ensure that students from everywhere would experience hands-on scientific learning. However, Correlational Quantitative Method was used to measure the perceptions of the respondents on the relationship of laboratory facilities and equipment and academic performance in science involving fifty-one (51) Grade 11 STEM students. The following are the results of the study: The respondents have agreed response to all assertions. That they perceived the available laboratory facilities and equipment as highly effective and adequate for science classes. The respondents agreed to all assertions. That they perceived regular access to laboratory as having a significant impact on their academic

Editorial Team

Editor-in-Chief: Alvin B. Punongbayan

Associate Editor: Andro M. Bautista

Managing Editor: Raymart O. Basco

Web Editor: Nikko C. Panotes

Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Ma. Rhoda E. Panganiban, Rjay C. Calaguas,
Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto, Jerico N. Mendoza



performance. The statements were regarded as agreed by the respondents, this suggests that they believed regular access to equipment had a considerable impact on their academic performance. There is significant relationship between the students' regular access to laboratory and regular access to equipment and their academic performance in science, when availability of laboratory facilities and equipment are considered. The Learning Activity sheets are designed by the researcher based on the results of the study.

Keywords: *Availability of Laboratory Facilities and Equipment, Academic Performance in Science, Regular Access to Equipment, Regular Access to Laboratory, Grade 11 STEM Students, Guided Learning Activities*

Editorial Team

Editor-in-Chief: Alvin B. Punongbayan

Associate Editor: Andro M. Bautista

Managing Editor: Raymart O. Basco

Web Editor: Nikko C. Panotes

Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Ma. Rhoda E. Panganiban, Rjay C. Calaguas,
Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto, Jerico N. Mendoza