



INTRODUCTION OF INCLUSIVE LEARNING ACTIVITY SHEET (ILAS) IN TEACHING HARD CONCEPTS IN CHEMICAL EDUCATION FOR STEM

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ABSTRACT

The Department of Education (2021) states that inclusive education encourages diversity and the unique contributions of each student in the classroom. The goal of making, testing, and using the Inclusive Learning Activity Sheet (ILAS) to teach hard chemical concepts is to help STEM students improve their academic potential as independent learners in hard chemistry lessons. The foundation of the study is set by social constructivism (n.d.) and Process-Oriented Guided Inquiry Learning (POGIL, 2018). The cross-method triangulation technique is used to collect and analyze data in this quasi-experimental study. Three evaluation stages, a pre-test, a post-test, and a retention test, were conducted, and an adapted DepEd-LMRDS validation instrument was used to ensure the quality of the ILAS as SLMs for General Chemistry 2. There were twenty-eight (28) STEM student participants who were purposefully sampled and five (5) expert ILAS validators involved in this study. Before the study was conducted, participants read and signed a consent form outlining the nature, goal, and methodology of the research. Participants were guaranteed confidentiality and anonymity in the study report (Creswell, 2020). According to the findings, the created ILAS for General Chemistry 2 demonstrated a highly acceptable (HA) measure based on the five acceptance criteria of LMRDS. There was a significant rise in the number of students with outstanding performance in General Chemistry, from 25.00 percent on the pretest to 57.14 percent on the retention test. The ILAS for General Chemistry 2 helps STEM students improve their grades and remember what they've learned in a statistically significant way. To keep education fair and high-quality for all students, it is recommended to change and build self-learning resources for different classes in every subject that have been carefully tested by experts.

Keywords: Chemical education, inclusive learning material, STEM achievement, teaching strategy



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