

**WEST VISAYAS STATE UNIVERSITY**  
**COLLEGE OF EDUCATION**  
**GRADUATE SCHOOL**  
Iloilo City

**EFFECTS OF MEMES IN PHYSICS LESSONS ON LEARNERS' PERFORMANCE**  
**AND CRITICAL THINKING SKILLS**

A Thesis Presented to the  
Faculty of the Graduate School  
College of Education  
West Visayas State University  
La Paz, Iloilo City

In Partial Fulfilment  
of the Requirements for the Degree  
Master of Arts in Education  
(Physics)

by

Honeylen Mae B. Casabuena

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**Abstract**

This quasi-experimental study aimed to determine the effect of using memes in teaching physics to Senior High School- STEM learners of Colegio de San Jose and was conducted via Zoom last March 21- May 11, 2022. This study was premised on Lev Vygotsky's Sociocultural Theory, Kahneman's Attention Theory, and Gagne's Theory of Instructions. The participants of the study were purposively selected sixty (60) learners combined and divided into two groups, thirty (30) learners for the control group (online learning) and thirty (30) learners for the experimental group (using memes in online learning). The instruments used were research-made 50-item pre-test and post-test assessments covering the topics of general physics 2, particularly in electricity, to measure the learners' academic performance and an adopted Cornell Conditioning-Reasoning Form X to measure the learners' critical thinking skills. The statistical tools employed were the Median, Mann Whitney U, and Wilcoxon Signed-Rank test to process and analyze the data. Based on the preceding findings, the following conclusions were drawn: first, the participants in online learning and using memes in online learning have "average" results in their pre-test performance may indicate that the learners have prior knowledge in general physics 2 in the topics of electricity. In

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terms of their post-test performance, the participants in online learning had an "average" result. In contrast, those using memes in online learning had a "high" result in their post-test performance, which may indicate that participants using memes in online learning have an increased and excel in their post-test performance compared to the participants in online learning. Second, the participants in online learning and using memes in online learning have "average" results in their critical thinking skills inferred that learners were capable of reasoning and analyzing the Cornell Conditioning-Reasoning Form X. Third, the pre-test and post-test of the participants in the two teaching strategies (online learning and using memes in online learning) show a significant difference. This indicates that both teaching strategies may have a positive effect in teaching general physics 2, specifically on the topics of electricity. Moreover, using two teaching strategies shows a significant difference in the post-test performance of the participants. These indicate that when taught to use memes, the participants have a greater increase in their post-test performance than online learning participants. Also, the participants' pre-critical and post-critical thinking skills tests in the two teaching strategies show a significant difference. This indicates that both teaching strategies effectively increase learners' critical thinking skills, but the result of using memes in online learning was higher than in online learning. Lastly, using two teaching strategies (online learning and using memes in online learning) shows a significant difference in the results of the participants' Cornell Conditioning-Reasoning Form X. This indicates that using memes in teaching physics on the topic of electricity influences developing learners' critical thinking skills. It is recommended that The

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Department of Education may also conduct more workshops on instructional strategies and prepare instructional materials that will enhance teachers' creativity and ability to teach difficult subjects. Teachers may also explore another teaching strategy that can help their learners to understand difficult subject areas which will be suited to the different learning styles of these learners.

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