

Effects of Planned Pre-laboratory Discussion on Physics Students' Acquisition of Science Process Skills in Kontagora, Niger State

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Abstract : This study investigated the effects of pre-laboratory discussion on physics students' acquisition of science process skills. The study design was quasi-experimental and purposive sampling technique was applied in selecting two schools in Kontagora Town for the research based on the availability of a good physics laboratory. Intact classes already grouped by the school for the sake of small laboratory space and equipment, comprising Thirty (30) students, 15 for experimental group in School A and 15 for control in school B were the subjects for the research. The instrument used for data collection was the lesson prepared for pre - practical discussion and researcher made Science Process Skill Test (SPST) and two (2) research questions, and two (2) research hypotheses were developed to guide the study. The data collected were analyzed using means and t-Test statistics at 0.05 level of significance. The study revealed that pre-laboratory discussion was found to be more efficacious in enhancing students' acquisition of science process skills. It also revealed that gender, had no significant effect on students' acquisition of science process skills. Based on the findings, it was recommended among others that teachers should encourage students to develop interest in practical activities by engaging them in pre-laboratory discussion and providing instructional materials that will challenge them to be actively involved during practical lessons. It is also recommended that Ministries of Education and professional organizations like Science Teachers' Association of Nigeria (STAN) should organize workshops, seminars and conferences for physics teachers and Physics concepts should be taught with practical activity so that the students will do science instead of learning about science.

Keywords : physics, laboratory, discussion, students, acquisition, science process skills

Conference Title : ICGEEL 2022 : International Conference on General Education and Enhancing Learning

Conference Location : Dubai, United Arab Emirates

Conference Dates : July 28-29, 2022