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EFFECTS OF MATHEMATICAL PROCESS ON SENIOR SECONDARY SCHOOL CHEMISTRY STUDENTS' ACADEMIC PERFORMANCE

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ABSTRACT

The study investigated the effects of mathematical process on chemistry students' academic performance in Acids, Bases and Salts. A quasi experimental research design using intact classes was employed in the study. Senior Secondary two (SS2) science students from Government Technical College, Runjin Sambo, Government Girls College, Mabera, and Government Technical College, Farfaru, all in Sokoto Metropolis of Sokoto State were used for the study. The face and content validity of the Performance Test in Acids, Bases and Salts (PTABS) was established by presenting the test questions to five (5) experts in the field of study at both university and secondary schools levels Data were collected with the help of the validated instrument developed by the researcher and a reliability index of 0.74 was established. Mean scores were used in answering the research questions while t-test was employed in testing the hypotheses. The findings revealed that there is a significant difference between the mean performances of Students taught Acids, Bases and Salts in chemistry using Mathematical processes and those taught using Discussion Method. No significant gender difference between the mean performances of students taught Acids, Bases and Salts in chemistry. Based on the findings, it was recommended that Mathematics processes should be employed in the teaching and learning of chemistry to enable students understand the connection between mathematics and chemistry.