

**AN ANALYSIS OF PROBLEM-SOLVING DIFFICULTIES IN MOLE CONCEPT AMONG SENIOR SECONDARY SCHOOLS STUDENTS IN ZARIA, NIGERIA**

**E.M. Omwirhiren**

Department of Chemistry, Federal College of Education, Zaria, Nigeria

The study analyzes the problem-solving difficulties in mole concept among senior secondary school students in Zaria, Nigeria using the Jackson-Ashmore model. A total of 140 SS 2 chemistry students selected from three private schools in Zaria with a mean age of 17 constituted the sample size for the study. The chemistry achievement test (CAT), Mathematics competence test (MCT) and Problem-solving Test in mole concept (PST) were used for the study. The students were classified as high achievers and achievers using the categorization test score. Data were analyzed using facility values (FV) and simple percentages (%). The findings from the study showed that the students performed poorly in quantitative problems involving mole concept. The students had difficulties not only in defining a problem goal and recall of appropriate chemical information, but also with the correct strategies required to reason through the problem. Recommendations were made based on findings.