

EFFECT OF GAME INSTRUCTIONAL APPROACH ON CHEMISTRY STUDENTS' ACHIEVEMENT AND RETENTION IN PERIODICITY

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ABSTRACT

This paper investigated the effect of games teaching approach on chemistry students' achievement and retention in periodicity. The research designed employed was pretest -post test control quasi experimental design. Multi-stage random sampling technique was used to select 96 students who participated in the study. Periodicity Achievement Test (PAT), used as Pre-Test (PREPAT), Post-Test (POSTPAT), and Post-Post-Test (PPPAT) was developed by the researcher and validated by experts. The reliability coefficient of the instrument obtained using spearman-brown prophecy formula was 0.77. Five hypotheses were formulated and tested at 0.5 level of significance. The pretest was administered to subjects in both groups to measure their knowledge in periodicity. The control group was taught periodicity for four weeks using only the conventional method while the experimental group was also taught periodicity for four weeks with games method. POSTPAT was administered to all the subjects at the end of the fourth week. Two weeks after the administration of POSTPAT, the PPPAT was administered to both groups. The results show that the students taught periodicity using game method achieve and retain better than those taught with conventional method. It was also discovered that gender has no influence on the achievement and retention of those exposed to treatment.

Keywords: Games, Achievement, Retention, Periodicity.