

## **LEARNING WHILE DOING MODEL AND SENIOR SECONDARY STUDENTS' LEARNING ACHIEVEMENT IN SOLID GEOMETRY**

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### **ABSTRACT**

This study explored the effectiveness of Learning While Doing (LWD) instructional model for enhancing the learning achievement of senior secondary students in solid geometry in Emohua Local Government Area of Rivers State. The study adopted quasi-experimental design. A total of 60 Senior Secondary School I (SSS1) students participated in the study. The instrument used for data collection was Solid Geometry Achievement Test (SGAT). The Kuder-Richardson, KR-21 method was used to determine the reliability of SGAT to yield an index of 0.84. This exploration was guided by two research questions and two null hypotheses. The mean and standard deviation were used to answer the research questions while Analysis of Covariance (ANCOVA) was used to test the hypotheses at .05 alpha level. The findings established that the students who were taught using LWD model gained more than those who were taught by Problem-based Learning (PbL) model over SGAT scores. The male students in the experimental group outperformed their male counterparts in the control group and the female students in the experimental group also outperformed their female counterparts in the control group. The result further showed that there was significant main effect of LWD on the learning achievement of students in solid geometry. However, there was no significant effect of sex on the learning achievement of the students in solid geometry. It was recommended among others that mathematics teachers should try to adopt the LWD instructional model in teaching solid geometry because of its efficacy in advancing students' learning achievement in solid geometry.

**Keywords:** Learning While Doing model, Solid geometry, Learning achievement.