

## ABSTRACT

*The study determined the Effect of Structured and Think-Aloud-Pair Problem-Solving instructional strategies on students' achievement and retention in Machine Shop Practice in North central Nigeria. Two research questions were raised and answered, while two null hypotheses were formulated and tested at a .05 level of significance. The study employed a quasi-experimental design of pre-test, post-test, and non-equivalent control groups. The study was carried out in North-Central Nigeria. This study's population comprised all 80 Nigerian Certificate in Education (N.C.E.) III metalwork technology education students. The study utilised the entire population as it is insignificant. The data collection instrument was Machine Shop Practice Cognitive Achievement and Retention Test (MSPCART). The MSPCART was subjected to content and face validation by three experts. The reliability index of MSPCART was determined using Kuder-Richardson 20 (K.R. 21) statistical technique and was found to be 0.77. The study employed descriptive statistics using mean and standard deviation to answer all the research questions and inferential statistics using Analysis of Covariance (ANCOVA) to test all the hypotheses at a significant level of 0.05 using Statistical Package for Social Science (SPSS) version 25. The study revealed that the students taught Machine Shop Practice using Structured Problem-Solving instructional strategy had higher mean cognitive achievement and retention scores than those taught using Think-Aloud Pair Problem-Solving instructional strategy. The study recommended that Machine Shop Practice lecturers adopt the Structured Problem-Solving instructional strategy to enhance students' cognitive achievement and retention.*

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