

## Computer Assisted Instructions for a Better Achievement in and Attitude towards Agricultural Economics

**Authors :** Abiodun Ezekiel Adesina, Alice M. Olagunju

**Abstract :** This study determined the effects of Computer Assisted Instructions (CAI) and Academic Self-Concepts (ASC) on pre-service teachers' achievement in AE concepts in CoE in Southwest, Nigeria. The study adopted pretest-posttest, control group, quasi-experimental design. Six CoE with e-library facilities were purposively selected. Two hundred and thirty-two intact 200 level Agricultural education students offering introduction to AE course across the six CoE were participants. The participants were assigned to three groups (D&PM, 77, TM, 73 and control, 82). Treatment lasted eight weeks. The AE achievement test ( $r=0.76$ ), pre-service teachers' ASC Scale ( $r=0.81$ ); instructional guides for tutorial ( $r=0.76$ ), drill and practice ( $r=0.81$ ) and conventional lecture modes ( $r=0.83$ ), and teacher performance assessment sheet were used for data collection. Data were analysed using analysis of covariance and Scheffe post-hoc at 0.05 level of significance. The participants were 55.6% female with mean age of 20.8 years. Treatment had significant main effects on pre-service teachers' achievement ( $F(2,207)=60.52$ ;  $\eta^2=0.21$ ;  $p < 0.05$ ). Participants in D&PM ( $\bar{x}=27.83$ ) had the best achievement compared to those in TM ( $\bar{x}=25.41$ ) and control ( $\bar{x}=18.64$ ) groups. ASC had significant main effect on pre-service teachers' achievement ( $F(1,207)=22.011$ ;  $\eta^2=0.166$ ;  $p < 0.05$ ). Participants with high ASC ( $\bar{x}=27.52$ ) had better achievement compared to those with low ASC ( $\bar{x}=22.37$ ). The drill and practice and tutorial instructional modes enhanced students' achievement in Agricultural Economics concepts. Therefore, the two instructional modes should be adopted for improved learning outcomes in agricultural economics concepts among pre-service teachers.

**Keywords :** achievement in agricultural economics concepts, colleges of education in southwestern Nigeria, computer-assisted instruction, drill and practice instructional mode, tutorial instructional mode

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