



A Peer Reviewed International Journal of Asian
Academic Research Associates

AARJSH

**ASIAN ACADEMIC RESEARCH
JOURNAL OF SOCIAL
SCIENCE & HUMANITIES**



TOWARDS IMPROVING STUDENTS' ACHIEVEMENT IN SENIOR SECONDARY GENETICS BY THE USE OF CONSTRUCTIVIST-BASED INSTRUCTIONAL MODEL

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Abstract

The study determined how constructivist based instructional model would improve students' achievement in senior secondary genetics in Gwer Local Government Area of Benue State. The study used quasi-experimental design, specifically, the pre-test post –test non-equivalent control group design. A sample of 147 students from four secondary schools out of a population of 2,183 SSII students was used. A 40 item Genetic Achievement Test (GAT) instrument which was validated by 2 experts in science education and one other from measurement and evaluation, all from Benue State University Makurdi, was used to collect the data. The instrument yielded a reliability coefficient of 0.81 using split-half. Mean (M) and Standard Deviation (SD) scores were used to answer the research questions while the Analysis of Covariance (ANCOVA) was used to test the hypotheses at $p < .05$ level of significance. The result revealed that constructivist-based instructional model was more effective in facilitating students, achievement in genetics $F(1,138)=82.961$, $P=0.001 < 0.05$. Also the result revealed that the female students benefited more significantly than their male counterparts when taught using constructivist-based instructional model $F(1,77)=9.839$, $p=0.002 < 0.05$. The study recommended among others that constructivist-based instructional model be adopted in our schools for teaching the genetics aspect of biology and that teachers be trained on the proper use of the model.
