

## **Influence of Gender and Knowledge on Secondary School Students' Scientific Creativity Skills in Nakuru District, Kenya**

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### **Abstract**

The purpose of this study was to investigate the influence of gender and knowledge on scientific creativity among form three biology students (third year in secondary school cycle) in Nakuru district in Kenya. The cross-sectional survey research was employed. The population of the study comprised all form three biology students in public secondary schools in Nakuru district. A sample of eight schools with a total of 363 students was selected from the population using stratified sampling technique. Two instruments, namely, Biology Achievement Test (BAT) and Biology Scientific Creativity Test (BSCT) were used to collect data. The psychological definitions of creativity tested are sensitivity, recognition, flexibility and planning. The mapping of these psychological definitions of creativity onto scientific meanings is explained using the model that guided construction of items in BSCT. Data analysis was done using quantitative methods. The statistics used were Pearson correlation coefficient( $r$ ), chi-square, t-test and ANOVA, at  $\alpha=0.05$  level of significance. The findings of this study indicate that the form three biology students who participated in the study had a low level of scientific creativity. Secondly, the level of scientific creativity is knowledge and gender dependent. The findings may help teachers and other stakeholders in education in inculcating creativity skills amongst science students.

**Key words:** Influence; Gender; Knowledge; Scientific creativity

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