

## ABSTRACT

Learning styles influence students in all levels of education and a mismatch of teaching styles to preferred learning styles makes learning a stressful experience to many learners. In Nairobi County, students in both private and public schools have not been performing satisfactorily in sciences. Matched teaching styles with preferred learning styles were conceptualised as the independent variables that determine their performance in biology and geography. The purpose of this study was to establish the Effect of gender on performance of students in biology and geography taught using preferred learning styles in secondary schools in Nairobi County, Kenya. This County was chosen because of unsatisfactorily performance in sciences as, only 12.632% of the schools got a mean grade of B- and above, in the years 2004 to 2010. The study was based on Felder Learning Style Theory, and Grasha Teaching Style Theory. A purposive sample of 1,322 students from 18,536 Form Two Students in private and public schools randomly selected for the study. The study employed quasi-experimental research design, which utilised a pre-test, treatment of experimental group and a post-test to estimate impact of an intervention of mismatch due to traditional teaching styles to preferred leaning styles on target population of 69,634 in 146 secondary schools. Questionnaires and pre-test and post-test were used to collect quantitative data. A full disclosure of the nature of the study was given to subjects with an extended opportunity to ask questions and get their free consent to participate. The collected data was analysed with the aid of the Statistical Package for Social Sciences (SPSS) version 22. Data was described and summarized using, percentages, and means. Multivariate analysis of variance and linear regression analysis showed statistically significant effect on performance of students taught using preferred learning styles in geography and biology. In conclusion, this study sensitised teachers of the need to identify and teach their learners according to their preferred learning styles in order to enhance their performance in sciences. It recommended the ministry of education science and technology in Kenya to in-service, and train teachers to acquire the skills of detecting learning style preferences of students.

**Keywords:** Learning styles, Teaching Styles, Gender, Match, Performance, and Biology and Geography.