RELATIONSHIP BETWEEN SELECTED PREDICTORS AND THE CHOICE OF MATHEMATICS RELATED COURSES AMONG FEMALE STUDENTS IN TECHNICAL TRAINING INSTITUTES IN WESTERN REGION OF KENYA

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ABSTRACT

Advancement in technology has influenced rapid development in developed countries across the globe (Kenya vision 2030, 2013). Developing countries are making efforts to emulate the developed countries and Kenya's vision 2030 is aimed at making Kenya an industrialized nation by 2030. Kenya has therefore embarked on training manpower at all levels of education, including post-secondary education. However, female students continue to lag behind male students in Science, Technology, Engineering and Mathematics (STEM) courses, with majority tending towards occupations such as nursing, secretarial jobs and social work. The purpose of this study was to investigate relationship between selected predictors and the choice of mathematics related courses among female students in Technical Training Institutes (TT!s) in Western Region of Kenya. The study was guided by the following objectives: to examine the relationship between anxiety and choice of mathematics related courses among female students in Technical Training Institutes in Western Region of Kenya, to find out the relationship between attitude and choice of mathematics related courses among female students in Technical Training Institutes in Western Region of Kenya and to establish the relationship between peer influence and choice of mathematics related courses among female students in Technical Training Institutes in Western Region of Kenya. Parson's Trait Factor Theory of career development informed the study. The study employed concurrent triangulation research design within the mixed method research approach using a target population of 1440 female students and 15 deans of students from 15 Technical Training Institutes in Western Region of Kenya. The sample size comprised of 302 female students (Krejcie and Morgan, 1970), 4 female student representatives taking mathematics related courses (purposive sampling), 4 female student representatives not taking mathematics related courses (purposive sampling) and 4 deans of students of the sampled TTIs (purposive sampling). Questionnaires and interview schedules were used as the main data collection instruments for the study. Validation of the instruments was ensured with the assistance of expert lecturers from the Department of Psychology of Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and reliability was ensured through Cronbach alpha and a reliability coefficient 0. 723 was reported. Quantitative data was analyzed using descriptive statistics and inferential statistics while qualitative data was analyzed using thematic analysis. The study found a strong negative relationship (r = 0.675) between anxiety among female students and choice of mathematics related courses which was statistically significant (p < 0.05), a strong positive relationship (r = 0.622) between attitude and choice of mathematics related courses which was statistically significant (p < 0.05) and an average positive relationship (r = 0.544) between peer influence and choice of mathematics related courses which was statistically significant (p <

0.05). The study recommends that mathematics teachers should teach students' study habits, raise student's confidence in their mathematical abilities and provide more practical tasks during mathematics classes. Mathematics teachers should also be trained to address anxiety problems of individual students.