

# Positive Psychology and Cognitive Behavioral Therapy

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## Enhancing women's performance in university science and mathematics in East Africa: Reflections from a 'shadowing technique'

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The aim of this study was to assess university female students' image of how they are faring in their science and mathematics programs and to isolate any challenges that might be hindering their motivation for optimal performance in these programs. A mixed method design was applied in implementing the research, using a catchment sample of 125 female students drawn from the Departments of Mathematics and Physics of a public university in Kenya. The 'technique of shadowing' provided the epistemological framework for the study. This is a process of finding out how users feel about the services they are getting in a target program; in this context, teaching and learning of mathematics and science at the university. The 'raid technique' was used for data collection. The peer corroborative interview pattern was applied in consolidating the problem themes isolated. A thematic model was applied in analyzing student challenges isolated. A discursive analysis was used in examining the tension density and the constitutive meaning of each problem highlighted. Percentage frequency loading of each problem mentioned was used in summarizing the trends of the findings. The results show that a number of negative factors, some structural, others mostly motivational, hinder optimal performance of university female students in science and mathematics in Kenya. This paper discusses these factors by name and clarifies the kind of obstacles they constitute against effective performance of Kenyan women in university science and mathematics. It also highlights some positive psychological measures for containing these factors.

### Biography

Augustine Nwoye is a Professor of Psychology at the University of KwaZulu-Natal, South Africa and a Member of the School of Applied Human Sciences. Through his research and writings he has made original and unique contributions to the definition and study of African Psychology as an emerging specialization very much in demand in the curriculum of many departments of psychology in the South and other regions of Africa. He has held distinguished teaching positions in several universities in Africa, including: The University of Jos, Nigeria; Kenyatta University, Nairobi, Kenya, The University of Dodoma, Tanzania and Covenant University, Lagos, Nigeria. He has also won several visiting fellowships and given public lectures in many universities in continental Africa, Asia, Europe and North America. He has received his PhD from the University of Nigeria and was recently in the United States as a Fulbright Scholar at Howard University and the College of the Holy Cross, Worcester, Massachusetts.

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