Title: A Study of the Relationship between Teachers' Attitude towards Mathematics and Pupils' Achievement in Mathematics in Kisumu District-Kenya.

Author: Onyango, James A.

Abstract: The objective of this study was to investigate the relationship between attitudes toward mathematics by teachers and their pupils achievement in mathematics in Kisumu Municipal Primary Schools, Kisumu District - Kenya. The study also aimed at finding out the following: (i) The relationship between teachers' experience and teachers' attitudes toward mathematics. (ii) The relationship between teachers' sex and teachers' attitudes toward mathematics. (iii) The relationship between teachers' grade and teachers' attitudes toward mathematics. (iv) The relationship between pupils' sex and pupils' achievement in mathematics. The sample used consisted of 18 Municipal Primary schools, standard six pupils and their mathematics teachers were treated to questionnaires. The teachers were treated to MASJT questionnaire which sought the teachers' opinions about mathematics. MASJT is a Mathematics Attitude Test using the Likert- five point scale. (ix) Pupils were treated to a teacher made achievement test of twenty multiple choice items, on form OMAT 6, which is a Mathematics Achievement test for Standard Six. 20 Teachers responded to the MASJT questionnaire, which enabled the researcher to categorise them into two groups thus: A Teachers with negative attitudes toward Mathematics, and B Teachers with positive attitudes toward mathematics. Pupil respondents number 341 composed of 179 boys and 172 girls. The pupils were grouped according to their teachers' category thus Group A = Pupils taught by teachers with negative attitudes toward mathematics and Group B = Pupils taught by teachers with positive attitudes toward mathematics. The main findings of the study were: 1. It was found that, there was a significant difference between teachers attitudes toward mathematics and their pupils achievement in mathematics. Pupils taught by teachers with negative attitudes toward mathematics (GP.A) are poor achievers in mathematics than those taught by teachers with positive attitudes toward mathematics (GP.B) so group B pupils are better achievers than Group A pupils. 2. There was a significant difference between teachers years of experience and teachers attitudes toward mathematics. The "New" teachers (0 - 3 yrs experience) had negative attitudes toward mathematics while "Medium" teachers (3-8 yrs) had the most favourable attitudes toward mathematics on the average. The "old" teachers (over 8 years experience) had less favourable attitudes toward mathematics than the medium teachers. 3. There was a significant difference between teachers sex and teachers attitudes. The male teachers had more favourable attitudes toward mathematics than the female teachers. (x) 4. There was no significant difference between teachers grades and their attitudes toward mathematics. 5. There was a significant difference between pupils sex and pupils achievement in mathematics. Boys achieved higher on the average than the girls. It is suggested therefore that teachers positive attitudes toward mathematics should be encouraged by creating favourable atmospheres for trainee teachers in mathematics by the tutors. In order to rectify sex differences in mathematics, it is suggested that teachers should motivate girls so as to assist them to perform equally with boys and the tutors to ensure that female teacher trainees are motivated in mathematics so as to develop positive attitudes toward the subject. It further suggested that research should be carried out on a wider sample of teachers and pupils country-
wide, and to investigate other possible factors such as cultural norms, pupils attitudes toward mathematics and social interactions among teachers and pupils, to compare mathematical achievement between pupils taught by female teachers and those taught by male teachers. "~<::-~. "' Much as teachers grade has no significant difference in attitudes towards mathematics, this should be investigated to find out significant relationships in attitudes between consequent grades.