

This study explores the sources of variability in Mathematics achievement of Ugandan students at the student, classroom and school level. The Mathematics score and questionnaire responses of 4,819 first-year secondary school students (Grade Seven, about 14-15 years old) from 78 classrooms of 49 schools were analysed. A three-level linear model was used. The results indicate that out of the total variance in Mathematics achievement 68.8%, 14.2% and 17.0% are situated at student, classroom and school level, respectively. Of all the considered explanatory variables at the three levels, i.e. socio-economic status, gender, prior Mathematics achievement, parental support, peer influence, class mean of prior Mathematics achievement and of students' perception of good classroom assessment, school mean of class climate (class mean of attitude toward mathematics) and of parental support were significant predictors of Mathematics achievement. The relevant factors could explain 7.6%, 73.1% and 84.3%, respectively, of student-, classroom- and school-level differences. Implications of our study are considered.