

Problems encountered by blind pupils in learning mathematics in Tanzania
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This study was carried out in order to identify major problems experienced by blind pupils and their teachers in the learning and teaching of Mathematics in primary schools. Although Mathematics has been considered a very important subject both for academic and practical reasons in every day life, blind pupils in Tanzania do not take it beyond primary level. Lack of information on the nature and magnitude of problems/difficulties faced by blind pupils in the learning of Mathematics at primary level created the need for carrying out the study. So far no systematic study has been carried out to identify major problems related to the learning and teaching of Mathematics. The study set out to determine the level of difficulty in learning Mathematics as perceived by blind pupils. Also, it focussed on the amount and appropriateness of expertise and teaching resources available to blind pupils taking Mathematics in primary schools. It was hypothesized that Mathematics would be identified as being the most difficult subject by the blind, expertise would be poor and insufficient and, similarly, schools would be poorly and inadequately equipped with teaching resources. Documentary reviews, questionnaires, interviews and checklists were used to collect data from 11 schools for the blind located in 10 regions of Tanzania mainland. Respondents from schools and a teachers' college included 53 blind and 187 sighted pupils from classes IV and VII, 22 specialist and 69 nonspecialist teachers (out of these 69, 25 were blind teachers), 12 teacher trainees pursuing a course on how to teach the blind and their three tutors. Two officials from the Ministry of Education and Culture and the manager of the Tanzania Braille Printing Press were also involved. Results indicated that both blind and sighted pupils found Mathematics one of the most difficult subjects, although it seemed more so to the former than to the latter category of pupils. Most teachers teaching Mathematics in the schools admitting the blind were not specially trained to teach disabled children. This problem was coupled with the acute shortage of specialised equipment needed for teaching Mathematics to the blind. Equipment found inadequate included the abacus, taylor frames, cubarithm, Perkins brailers and typewriters. Therefore, it was concluded that Mathematics was not difficult to blind learners alone. Sighted learners also found it almost equally difficult. What made the subject seem "too difficult/ for blind pupils to take it successfully was the lack of appropriate expertise and equipment required for effective

teaching/learning of the subject. Consequently, measures recommended to overcome the problems included appropriate training and utilisation of teachers, as well as adequate supply and use of pieces of equipment and materials required. These measures would improve the teaching of Mathematics in primary schools in Tanzania and create conditions for its being taken by blind students at secondary school and higher levels of education.