

An assessment of inter-active approach in the teaching and learning mathematics: a case of secondary schools in Kisarawe and Kibaha districts in Tanzania.

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This study assessed implementation of classroom interaction approach in teaching and learning mathematics in ordinary level secondary schools in Tanzania. The study was conducted in Kibaha and Kisarawe districts in Coast Region. It specifically assessed students' participation during mathematics teaching and learning; assessed the extent to which mathematics teachers conducted interactive teaching and learning in mathematics lessons. It also examined availability and relevance of teaching and learning materials used to implement interactive teaching approach. A total of 259 respondents were involved in the study. Simple random, systematic random and purposive sampling techniques were used to select sample for the study. Questionnaire, interview and observation data collection methods were used in the study. Results obtained through questionnaires were analyzed using Statistical Package for software systems (SPSS). Interview, documentary review and observation were analyzed using content analysis. Results revealed that there was participation in mathematics lessons. Students participated in classroom by asking and answering questions. Teachers provided feedback after conducting tests and assignments. Moreover, the study revealed that teachers used students' ideas in mathematics lesson, related mathematics concepts with real life activities. Furthermore, the study revealed that the most dominant interactions were teacher to students and students to students. Additionally, the study revealed that teacher to students, teacher to materials, students to materials existed in mathematics lessons. Data analysis revealed that not all studied schools had well prepared schemes of work and lesson plans. The situation implies that, in studied schools, there were teaching and learning materials but not enough to facilitate interactive approach. Finally the study concluded that in studied schools there were implementation of classroom interactive teaching and learning mathematics lessons in ordinary level secondary schools. But lack of adequate teaching and learning materials such as students' text books, teachers not prepare lesson plans that were deemed to foster interactive approach, lack of teaching and learning materials in teachers' schemes of work, discouraged application of interactive teaching approach

all the time, which implies it was not sustainable. The study recommended that the government ought to prepare in-service programmes for mathematics teachers, specifically on the use of available local teaching and learning materials so as teachers accommodate teaching mathematics through interactive approach. Furthermore the study recommended that the government, through the Tanzania Institute of Education (TIE), ought to provide more mathematics texts and reference books in government schools in order to make interactive teaching approach to be sustainable. Also it is recommended that a similar study be varied out at many secondary schools in other areas in the coast region. The measure would lead to a better understanding of mathematics teaching and learning in different regions.