

Abstract:

Mathematics plays an important role in developing students' logical, creative and critical reasoning, optimize industrial processes, solve problems, function with linear and non - linear thought processes and communicate solutions briefly and precisely among other soft skills. Despite the critical role played by mathematics, low competence in soft skills had been witnessed. Low competence in soft skills had been a source of concern to stakeholders in technical and vocational education because the input was not commensurate with the output. Low competence in soft skills was associated with instructional challenges. Activity - based instructional processes and learning in mathematics could improve competence in soft skills. Yet, the use of multi - disciplinary approaches which depend on using students' experiences in mathematics and science, project - based teaching and industrial - based activities had not been fully exploited. The purpose of the study was to establish what activities in multi - disciplinary approaches could stimulate interest in mathematics for development of physical, social and mental well - being skills in technical institutions in Kenya. The findings and recommendations were expected to inform policy decision in establishing quality and relevance in training and accreditation in mathematics in technical colleges in Africa and world over. The study was carried out by a descriptive survey design. Lecturer's questionnaires were administered to collect data on disciplinary approach for improving students' competence in soft skills in technical