

Problem Solving Skills as Mediator in the Relationship between Learning Environment and Mathematics Achievement.

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- **Abstract:** This study aims to identify the role of problem-solving skills as mediator in the relationship between the learning environment and mathematics achievement among secondary school students. This study uses survey method involving a total of 333 Form Four students from ten secondary schools who were selected using two-stage stratified sampling technique. Data were analyzed using the Structural Equation Modelling technique, in which direct and indirect effects between variables were identified. Findings show that the direct effect between learning environment and achievement has decreased from 0.548 ($p < 0.001$) to 0.225 ($p < 0.001$) when problem solving skills are included as mediator. In conclusion, the findings of this study prove that students' mathematics achievement can be improved if they apply problem solving skills while undergoing mathematical assessments. The implications of this study suggest that attention should be given not only to the provision of a learning environment that incorporates learner-centered, knowledge-centered, assessment-centered and community-centered characteristics, but also to strategies that help students build problem solving skills in an effort to improve their mathematics achievement.
- **Keywords:** Structural Equation Modelling, community-centered characteristics, two-stage stratified, sampling technique.