

**THE EFFECT OF PROVOKING METACOGNITIVE PROMPTING
DURING PROBLEM SOLVING TEST ON STUDENTS'
GENETICS SCORE OF CLASS XII IPA
AT MAN 2 MODEL MEDAN**

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ABSTRACT

This study investigates the effect of using Metacognitive Prompting (MP) during the testing of student's problem solving ability score on genetics topic. Control group quasi-experimental design involving analysis of variance (ANOVA) also investigated the moderating effect of gender on genetics problem solving test. The samples of this study were all students of XII IPA 9 and XII IPA 10 classes at MAN 2 Model Medan. The study used two validating instruments; Genetics Problem Solving Test (GPST) and Metacognitive Prompting Questionnaire (MPQ). The data was taken by using instrument in the form of multiple choices which had been tested for the validity and reliability. The findings showed that metacognitive prompting (MP) had a significant effect on the ability of student's genetics problem solving, with $p = 0.003$. This study established a foundation of instructional methods for biology teachers and recommendations were made for implementing metacognitive prompting in a problem-based learning environment in high schools level and science teachers in Medan.

Key Words: *Metacognitive Prompting, Genetic Problem solving Test.*