

# 2 Teaching and Learning Middle Grades Mathematics with Understanding

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## **ABSTRACT**

*This study addresses the nexus of two critical challenges for today's mathematics teacher. On the one hand, teaching for understanding for all students is the goal of most mathematics teachers. However, many teachers also must acknowledge and address the requirement that students do well on high stakes tests. This study analyzed data on 6<sup>th</sup> grade students' performance and achievement after a year-long implementation of Connected Mathematics (CMP). Texas Assessment of Academic Skills (TAAS) data were analyzed, comparing students' achievement from 5<sup>th</sup> to 6<sup>th</sup> grade. The variables of at-risk, socio-economic status, and ethnicity were analyzed to determine the nature and practical importance of adopting CMP. The results indicated that the overall gain from using CMP materials over the previous year's mathematics achievement was four points ( $p < .01$ ). The at-risk students demonstrated a mean 10-point gain ( $p < .01$ ) while the non at-risk students demonstrated a mean 2-point gain.*