Teaching, Learning, and Curriculum Studies

HOW DOES SELF-REGULATION IMPACT STUDENT'S USE OF MATHEMATICAL STRATEGIES IN A REMEDIAL MATHEMATICS COURSE (163 pp.)

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In order to improve teaching strategies in a college level remedial mathematics course, this study seeks to investigate student perception while they attempt challenging mathematics tasks. The participants were 72 students enrolled in a mid-western university remedial mathematics course. A qualitative case study methodology was used to investigate the students' experience. The On-Line Motivational Questionnaire (OMQ) was used to gather general information about the group and to help the researcher determine the five individuals to be interviewed. The findings of the study showed that students persisted less often, were less accurate in their solutions, and protected their well being when confronted with a challenging mathematics task. The mathematics tasks required the students to use proportional thinking and the study suggests that the participants were not as accurate when comparing ratios symbolically. The findings suggest that curriculum should include more problem solving strategies and should specifically focus on proportional reasoning.