

**ZMATH 2006a.00385**

**Engelbrecht, Johann; Harding, Ansie; Potgieter, Marietjie**

**Undergraduate students' performance and confidence in procedural and conceptual mathematics.**

Int. J. Math. Educ. Sci. Technol. 36, No. 7, 701-712 (2005).

The general perception is that high school teaching of mathematics in South Africa tends to be fairly procedural and that students that enter university are better equipped to deal with procedural problems rather than conceptual. This study compares the conceptual and procedural skills of first-year calculus students in life sciences. Also investigated is students' confidence in handling conceptual and procedural problems. The study seems to indicate that these students do not perform better in procedural problems than in conceptual problems. They are more confident of their ability to handle conceptual problems than to handle procedural problems. Furthermore the study seems to indicate that students do not have more misconceptions about conceptual mathematics than about procedural issues. (orig.)

*Classification:* D60 C20 D70 C30

doi:10.1080/00207390500271107