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Assessing impact of instruction on spatial ability among Malaysian engineering students

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Abstract

Spatial ability across gender was examined among the first year engineering students in a Malaysian university. A sample of one hundred and eighty four participants, with a balanced ratio of male and female students, were recruited using stratified random sampling. In this study, participants were asked to complete a spatial ability test at their best in one hour. The test was adopted from Purdue Spatial Visualization Test: Rotations (PSVT:R) and the Mental Cutting Test (MCT). In addition, by using another set of comparable spatial ability test, the impact of instruction was measured. The results support many of the findings in previous research that males significantly outperformed females in spatial ability. However, there was no significant difference found between students' spatial scores and their entry qualifications. Results of this study also reveal an interesting finding on the significant effect of instruction in improving the spatial ability of engineering students. © Common Ground, Mohamad Raduan Kabit, Norehan Zulkipli, Aidil Azli Alias, Wan Hashim Wan Ibrahim, Resdiansyah Mansyur, Ron Aldrino Chan, All Rights Reserved, Permissions.

Author keywords

Instruction; Mental cutting; Mental rotation; Spatial ability; Spatial visualization

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