

# **The Aptitudes of Engineering Students**

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## **ABSTRACT**

This report presents the results of a validation study of 256 University of Texas-Austin (UT-Austin) engineering students. The engineering students were administered the Johnson O'Connor Research Foundation's standard battery of aptitude and knowledge tests to examine how aptitude performance relates to performance in and completion of the engineering major.

The engineering students as a whole were a quite able group. They averaged High scores (70<sup>th</sup> percentile or above) on Graphoria, Foresight, Number Series, Memory for Design, Number Memory, and Mathematics Vocabulary. Also, students who successfully completed an engineering degree at UT-Austin scored significantly higher than unsuccessful students on Analytical Reasoning, Number Series, Number Facility, Incomplete Open Cubes (a test of structural visualization), and both English and Mathematics Vocabulary. In terms of engineering degree specialties, mechanical engineering majors excelled on Inductive Reasoning, Incomplete Open Cubes, and Spatial Visualization. Electrical and chemical engineering majors excelled on the two vocabulary tests. Correlations between standard battery performance and college grade point averages showed significant relationships for Foresight, Number Facility, Memory for Design, and the two vocabulary tests.

A follow-up questionnaire was sent to participants in the study, but there were too few respondents to obtain meaningful results.

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