

ZMATH 2013b.00788

Deakin, Michael

History of mathematics: the vectors of mind.

Parabola 48, No. 2, 14-26 (2012).

From the editorial: The article continues the author's History of mathematics series. In this article he considers factor analysis applied to test scores. The underlying idea in factor analysis is to determine if a number of observables y_1, y_2, \dots, y_n can be linearly related to a smaller number of unobservable factors f_1, f_2, \dots, f_k . For example the observables might be scores from many different students in n different tests.

Classification: K80 A30 H60

Keywords: cognitive psychology; intelligence factors; factor analysis; principal component analysis; vectors; descriptive statistics; means; variance; standard deviation; correlation coefficient; correlation matrices; matrix of covariances; characteristic polynomials; eigenvectors; largest eigenvalue; objective evidence; subjective evidence; fundamental factors; objective factors; subjective factors