

Test Development Study on the Mental Rotation Ability

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ABSTRACT The mental rotation ability is one of the important components of spatial ability. The purpose of this paper is to develop a test that includes mathematical context regarding the ability of mental rotation measured by various tests in the literature. To this end, a 32-item test was established by departing from questions found in field test in the literature and by adding new questions containing mathematical content. As a result of validity-reliability tests performed following the pilot application, 3 items were removed from the test and mental rotation test took its final form by 29 items. Cronbach's alpha internal consistency of this test with its final form was acquired as .81. According to confirmatory factor analysis, goodness of fit indices was found to be $\chi^2/SD = 1.42$, GFI = 0.92, CFI = 0.93, NNFI = 0.91, RMR = 0.012 and RMSEA = 0.037.