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**TEST ANXIETY AND ITS RELATIONSHIP WITH MATHEMATICS ANXIETY
AND THE SUBDOMAINS OF MATHEMATICAL THINKING AMONG FIRST-
YEAR UNIVERSITY STUDENTS**

Abstract

The dissertation examines relationships between test anxiety, mathematics anxiety, and mathematics performance (logical-deductive, proportional, combinatorial reasoning) among first-year university students, tracking how anxiety-related emotions change across a testing situation. Test anxiety, a stable trait activated in evaluative situations, negatively relates to performance, self-esteem, and working memory. Data were collected via the eDia system from first-year students in the "Career Building" course at the University of Szeged (Aug–Sept 2023). Study 1 (N = 1792) validated the Hungarian Brief Friedben Test Anxiety Scale (B-FTAS-H); factor analysis supported a three-factor structure (Social Derogation, Cognitive Obstruction, Tension). Nearly 89% of students showed moderate-to-high test anxiety, with women scoring higher on all dimensions. Studies 2 (N = 1722) and 3 (N = 1680) examined how mathematics anxiety affects performance and mediates the effect of test anxiety on it. Learning-related anxiety was the stronger predictor, mathematics anxiety fully mediated test anxiety's impact, combinatorial reasoning showed the largest negative effect, and cognitive obstruction was the strongest correlate of poor performance. Study 4 (N = 1775) tracked emotions before, during, and after a test. Test anxiety dropped during the exam and rebounded afterward; motivation and self-efficacy unexpectedly declined post-test, with only self-efficacy's link to performance varying significantly over time, peaking during the test. The dissertation offers a validated Hungarian instrument, demonstrates mathematics anxiety's mediating role, and provides recommendations for coordinated, subject-specific interventions timed to the phases of testing.

Keywords: *test anxiety; mathematics anxiety; reduction of test anxiety; B-FTAS-H*