

EVALUATION OF THE SUCCESS OF MATHEMATICS TEACHER CANDIDATES IN 2001-2004 UNIVERSITY ENTRANCE EXAMINATION IN TURKEY

MUZAFFER OKUR & RAMAZAN DİKİCİ

ABSTRACT

In this study, the knowledge and skills that Mathematics Teacher Candidate (MTC) students should gain to solve the mathematics questions in the University Entrance Examinations (UEE)¹ between the years 2001 and 2004, and the rate of success have been examined. For this purpose, mathematics questions of UEE of last four years have been applied to a group of 593 MTC students that are currently at Kazim Karabekir Education Faculty and Faculty of Arts and Sciences in Atatürk University. At the end of the assessment, the rate of students' success in answering questions related to permutation and combination, three-dimensional geometry was found out to be low. In addition, we also determined the distribution of the questions according to the subjects in the curriculum and their conformity in terms of content and level.

Keywords: University entrance examination; mathematics teacher candidate; student success; item difficulty.

References

- Anderson L.W. & Krathwohl D.R. (Eds.). 2001. *A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition*. New York:Longman.
- Aydın N. & Asma N. 2000. *Lise 1, 2 ve 3 Matematik Ders Kitapları*. Ankara:Aydın Yayınları.
- Baykul, Y. 1989. *ÖSS İle Yoklanan Bilgi Ve Beceriler Farklı Okul Tür Ve Sınıflarında Ne Ölçüde Kazanılmaktadır? ÖSYM*. Ankara:TAB Eğitim Yayınları.
- Benincasa L. 1998. University and the Entrance Examinations in a Greek Provincial Town: A Bottom-Up Perspective. *Educational Studies* **24**(1): 33-44.
- Berberoglu G. 1995. Differential Item Functioning (DIF) Analysis of Computation, Word Problem and Geometry Questions across Gender and SES Groups. *Studies in Educational Evaluation* **21** (4): 439-456.
- Berberoglu G. 1996. The University Entrance Examinations in Turkey. *Studies in Educational Evaluation* **22** (4): 363-373.
- Bilgiç Ş., Kıyak Z. & Gökçen J. 2002. *Lise Geometri 1 Ders kitabı*. İstanbul:Milli Eğitim Basımevi.
- Black P. (Ed.). 1992. *Physics Examinations for University Entrance. An International Study. Science and Technology Education Document Series: 45*. France.
- Bloom B.S. 1956. *Taxonomy of educational objectives*. Handbook I:The Cognitive Domain. Newyork: David McKay Co Inc.
- Changbin Z. 1995. The National University Entrance Examination and Its Influence on Secondary School Physics Teaching in China. *Physics Education* **30**(2): 104-108.
- Christensen T. 1985. University Entrance Examinations and English Teaching in Japanese High Schools-A Non-Japanese Evaluation. *Speech Education* **12**: 12-20.
- Dökmen Ü. 1992. T.C. *Yükseköğretim Kurulu Öğrenci Seçme ve Yerleştirme Merkezi, Kuruluşu, Gelişmesi, Çalışması*. Ankara:ÖSYM Yayınları.
- Eden H. 2001. *Lise Analitik Geometri Ders Kitabı*. İstanbul:Küre Yayıncılık.
- Ersoy Y. 1997. *Bilgisayarın matematik eğitiminde kullanılması*. Ankara:Ortaöğretim Matematik Öğretimi. Cilt 2, YÖK-Dünya Bankası MEGP.

¹ UEE is approximately equivalent to the GCSE in the UK.

- Farnham N. 1982. *University Entrance Examinations and Performance Expectations*. A Comparison of the Situation in the United States, Great Britain, France, and West Germany. U.S.A:District of Columbia. p.57.
- Hitt F. 2001. Working group on representations and mathematics visualization, Representation and Mathematics Visualization (1998-2001), Panelists: Kaput J. Radford L. Presmeg N. and Santos M.
- Hong Y.Y. Thomas M. & Kiernan C. 2000. Supercalculators and University Entrance Calculus Examinations. *Mathematics Education Research Journal* **12**(3): 321-336.
- Keith L. & Wang L. 1991. Access to University Education in the People's Republic of China; A longitudinal Analysis of the Structure and Content of the University Entrance Examinations 1984-1988. *International Journal of Educational Development* **11**(3): 231-244.
- Kellecioglu H. 2002. Ortaöğretim Öğrencilerinin Üniversiteye Giriş Sınavı ve Sınavın Öğrenimlerine Etkisi Hakkındaki Görüşleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* **23**: 135-144.
- Lucastro V. 1990. The English in Japanese University Entrance Examinations: A Sociocultural Analysis. *World Englishes* **9**(3): 343-354.
- Manos H. 1992. University Entrance Examinations in China and Japan. *The Physics Teacher* **30**(8): 466-476.
- Marshall J. C. and Hales L. W. 1971. *Classroom Test Construction*. Massachusetts:Addison-Wesley Publishing Company.
- Okur M. & Dikici R. 2004. Özel Dershaneler İle Devlet Okullarının "Kartezyen Çarpım -Analitik Düzlem Ve Bağntı" Konularındaki Bilgi Ve Becerileri Kazandırma Düzeylerinin Değerlendirilmesi. *Kastamonu Eğitim Dergisi* **12**(2): 417-426.
- Okur M. 2002. *Özel Dershanelerin Ortaöğretim Düzeyinde Cebir Öğretimindeki Yeri Ve Önemi*. Yayınlanmamış Yüksek Lisans Tezi. Erzurum:Atatürk Üniversitesi.Fen Bilimleri Enstitüsü.
- Orton A. & Wain G. 1994. *Issues in Teaching Mathematics*. London:Cassell Villiers House..p.14-15
- OSYM. 2005. *Öğrenci Seçme Sınavı Kılavuzu*. Ankara:Meteksan Anonim Şirketi.
- Sarıgül Ö.E. Kılıçaslan H. & Tokerler S. 2002. *Lise Geometri 2 ve 3 Ders kitapları*. Ankara:Milli Eğitim Basımevi.
- Şirin H. 1998. *Özel Dershanelerin Genel Görünümü ve Öğrenci Görüşleri*. Yüksek Lisans Tezi. Ankara:Hacettepe Üniversitesi.
- Tebliğler Dergisi. 1992. *T.C. MEB*. Ankara:Sayı 2455 ve 2470.
- Wu L.E.E.T. 1993. Japanese University Entrance Examination Problems in Mathematics. *American Educator: The Professional Journal of the American Federation of Teachers* **17**(1): 25-35.
- Zhang J.& Manos H. 1994. National University Entrance Examination for China. *The Physics Teacher* **32** (3): 187-189.

Department Primary Education,
Kazım Karabekir Education Faculty,
Atatürk University, 25240-Erzurum, Turkey
E-mail: mokur@atauni.edu.tr*, rdikici@atauni.edu.tr

* Corresponding author.