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**The effects of UZWEBMAT on the probability unit achievement of Turkish eleventh grade students and the reasons for such effects.**

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Summary: This study aimed at determining the effects of UZWEBMAT (Turkish abbreviation of adaptive and intelligent web-based mathematics teaching-learning system) on the probability unit academic achievement of students and the underlying reasons for these effects. The study was conducted in an Anatolian high school located in a district of Trabzon province, Turkey in the fall semester of the academic year 2011–2012. The research sample consisted of 106 eleventh grade students and 2 mathematics teachers. Semi-experimental method was used in the study. Pre-probability unit achievement test (pre-PUAT), post-probability unit achievement test (post-PUAT), scale for evaluation of the UZWEBMAT by students (SEUS), student interview form (SIF), and teacher interview form (TIF) were used for collecting data. Research results indicated that there was a statistically significant difference in favor of the experimental group (EG) students between the academic achievement of the EG students and that of the control group (CG) students. In addition, male EG students were found to be more successful than female EG students. However, no statistically significant relationship was found between the learning styles and the academic achievements of the EG students with different learning styles (visual-auditory-kinesthetic). In addition, no statistically significant relationship was detected between the genders and the academic achievements of the EG students having different learning styles. It was concluded that the higher achievement of the EG students resulted from the fact that they received education in accordance with their learning styles via UZWEBMAT, the learning objects included in UZWEBMAT had appropriate structural characteristics, students enjoyed learning in that environment, and students had continuous interest in the lesson.

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