

## CLASSIFICATION AND RANKING OF THE CITIES IN TURKEY DEPENDING ON THE 2012/2013 FORMAL EDUCATION STATISTICS

Semih Küçükyılmaz  
Hacettepe Üniversitesi  
Fen Fakültesi, İstatistik Bölümü, Beytepe, Ankara  
[semihky7@gmail.com](mailto:semihky7@gmail.com)

Doç. Dr. Serpil Aktaş  
Hacettepe Üniversitesi  
Fen Fakültesi, İstatistik Bölümü, Beytepe, Ankara  
[spxl@hacettepe.edu.tr](mailto:spxl@hacettepe.edu.tr)

Arş. Gör. Özge Karadağ  
Hacettepe Üniversitesi  
Fen Fakültesi, İstatistik Bölümü, Beytepe, Ankara  
[ozgekaradag@hacettepe.edu.tr](mailto:ozgekaradag@hacettepe.edu.tr)

### Abstract

The purpose of the study is to classify similar provinces according to variables by k-means clustering analysis and put in order the provinces according to their success by gathering similar variables under the factors by factor analysis. For this purpose, 1620 data including 20 variables were taken directly by Ministry of Education's 2012/2013 formal education yearbook of education statistics. The cluster number is found as five by k-means clustering analysis and it can be seen that the metropolitans make difference as expected. From the factor analysis, variables are categorized into four factors.

**Key Words:** Factor Analysis, k-means clustering analysis, classification, education statistics.