FACTORS RELATING TO PERFORMANCE OF STUDENTS IN THE CROP SCIENCE MODULES IN FACULTY OF AGRICULTURE, UNIVERSITY OF PERADENIYA (2000-2012)

S.M.C.P. Siriwardhana* and R.O. Thattil

Crop Science Department, Faculty of Agriculture, University of Peradeniya, Sri Lanka
*smcpsiriwardhana@gmail.com

Factors relating to academic performance might be different in universities as well as in different departments of a given faculty. Therefore, this study aimed to investigate the factors relating to performance of students who followed the Crop Science (CS) modules in the Faculty of Agriculture, University of Peradeniya from 2000 to 2012. Secondary data were collected from the Senate Office of the University and the Administrative office of the faculty. For data analysis, Box plot, two sample *t*-test, Spearman's correlation coefficient, Pearson's correlation coefficient, General Linear Model (GLM) of SAS, Simple Linear Regression, Principle component Analysis (PCA) and Cluster Analysis were used. The performance of students in the CS modules was also compared with other department. Using Cluster Analysis (CA), the subjects of the two CS modules were classified.

According to the results, different performances were found in different departments. The average performance of students in the CS department was lower than other departments. When only the top 15 students were considered the performance of students in the CS modules was very high. During majoring, performance of students in the CS modules was at good level. Correlation analysis and two sample *t*-test showed that the A/L Z-Score (p=0.0043), Gender (p<0.0001), Socio-Economic status (p=0.0109), number of A/L attempts (p=0.0003), A/L English grade (p<0.0001) and Agriculture/Physics as an A/L subject (p<0.0001) were all significantly related to academic performance of the CS students while Vacancy Filling or 1st Selection (p>0.2166), Ethnicity (p>0.6464), General Knowledge at A/L (p>0.2947) did not affect the performance significantly. GLM analysis indicated that English was the highest related factors to performance followed by Z-score and Gender. In PCA, two components having Eigen value much greater than 1.0 were retained and identified as social and cognitive ability as the factors relating to performance. CA showed that cognitive ability largely determined the performance for subjects in ACPT module and mathematical skill and practical experiences determined the performance for subjects in Plantation management and Forestry module.

The performance of students of the CS department was lower than other departments. However, this is mainly due to large number of students in the CS modules. When only the top GPA holders are considered the performance of students in the CS modules is very high. A/L Z-Score, Gender, District, Socio-Economic status, number of A/L attempts, A/L English grade and Agriculture/Physics as an A/L subject are all significantly related to academic performance while Vacancy Filling or 1st Selection, Ethnicity, General Knowledge at A/L do not affect the performance significantly. Knowledge of English was the highest related variable to performance followed by Z-score and Gender. Basically, social and cognitive factors determine academic performance of students in the CS department. The results of CA indicated that different subject groups require different knowledge, skills and abilities for good performance.