

ABSTRACT

In this paper, the associations of early-stage business students with learning assets for an introductory statistics module over a period of four months were analysed using Latent Class Analysis. The examples of conduct of studies, by the various groups give bits of knowledge in relation to which learning assets undergraduates use more frequently. Although varying degrees of face to face participation and online association existed, all the groups neglected to connect with online material in an ideal way. Later on, two variable selection method called Headlong Search Algorithm and Swap Stepwise Selection Algorithm for Latent Class Analysis were explored. These methods compared two models to determine a variables usefulness for clustering, provided the clustering variables are already selected. Implementation of Headlong Search Algorithm resulted in the selection of variables with clustering information, thereby removing 17 variables out of 59 variables. Most of the variables containing information in relation to scheduled online material were dropped, whereas all the variables containing lecture and tutorial attendance were retained. Consequently, led to classification performance improvements and accuracy in the choice of the number of classes. The results from this examination can be further used for the production of various models like Early Warning Systems, that warns the students at risk presumably during the mid-semester, to give them sufficient time to improve before final examination or it can also be used by educators to build student-specific supplies, which caters to student needs as per their behaviour, etc