

COMPARISON OF DISTANCE MEASURE IN CLUSTER ANALYSIS: A CASE STUDY OF FINAL EXAMINATION ANSWER BOOKLET

¹Nadiatul Farhana Binti Mohtar & ²Azlan Abdul Aziz

¹nadiatulfarhanamohtar@yahoo.com

² azlanabdaziz84@gmail.com

ABSTRACT

Hierarchical Cluster Analysis (HCA) is unsupervised learning classification into groups or clusters. This technique is for grouping the similar data into clusters and dissimilar data into different clusters. Clustering algorithms are widely used to not only categorize and organize data, but are also useful for data compression and model construction. HCA is widely used and can be applied in many areas such as in agricultural, medical and education. The purpose of this study is to compare the dissimilarity measure. The goal of this study is to cluster the unused Main Answer Booklet (MAB) and Additional Answer Booklet (AAB) based on faculty, level of education and courses. Faculties involved are FAC, FBM, FPA, FSG, FSKM, FSPU and FSR. There are five methods of distance measure to compare the dissimilarity distance. Compare to the five distance measure, there gives the same results. The result of faculties shows that the most unused MAB is FSG and the most unused AAB is FSPU. For level of education show that FSG is the most unused of MAB and AAB. Meanwhile, For courses, BIO 320, ECO 120, MAT 183, CTU 555, GEO 290 and CTU 551 are the most MAB unused and MAT 423 is the most and highest unused AAB. Therefore, the Academic Affairs Division (BHEA), UiTM Perlis need to redesign the number of MAB and AAB pages, so that students can fully use the page provided and minimize the cost of preparing the Answer Booklet.

Keywords: Hierarchical Cluster Analysis, Main Answer Booklet, Additional Answer Booklet, Academic Affairs Division.