Abstract

In a collaborative learning needed automation in the formation of groups to facilitate teachers in forming a group that is used to improve the interaction between group members. CSGF required to support and implement the formation of groups based on the similarity of characteristics of group members. The problems that arise are orphan students in which some students are not getting the group after the grouping is done.

From the problems it is in this thesis the author distributing questionnaires to students with questions about eighteen quantity value used as a parameter in the formation of the group that later survey results built ontologies Students Profile where the ontology have to inference to be formed homogenous groups. Clustering technique used is the K-Means clustering algorithm, this algorithm is simple and easy to implement.

The results of the testing and analysis in this study shows that the results of the questionnaire that has been deployed by author can be designed and built an ontology Students Profile. For the formation of the group, K-Means algorithm does not produce orphan students with parameter k between 7-13. Additionally this algorithm produces a homogeneous group in several clusters. Things to influence the outcome of the group K-Means clustering algorithm is that the initialization centroids and the precise of parameter k, because of the test showed that there is only one member in a particular cluster.

***Keyword** : Semantic-web, group formation, ontology, adaptive learning, teams, K-Means clustering algorithm, orphan students, similarity, clustering.*