ABSTRACT

Society participation has a very important role in supporting the success of education in Indonesia. High society participation results in the quality of education getting better, and vice versa. The level of society participation in education can be seen from Education Participation Rate which consists of the Angka Partisipasi Sekolah (APS), Angka Partisipasi Murni (APM), dan Angka Partisipasi Kasar (APK). In this research, provinces in Indonesia were grouped based on Education Participation Rates using the Fuzzy Subtractive Clustering (FSC) method with two membership functions, namely Gaussian and Beta. This research aims to find out groups of provinces that have low to high Education Participation Rates. This research is also equipped with the Graphical User Interface (GUI) R which is used to simplify the grouping process using the FSC method. The data used is APS, APM, and APK at the high school/equivalent level according to provinces in Indonesia in 2023. The results of this research show that the FSC method with a Gaussian membership function generate better cluster quality than the FSC method with a Beta membership function. The best number of clusters obtained with the Gaussian membership function at radius 0.7 with a Partition Coefficient index value of 0.6386 and generate 3 clusters. The first cluster is a cluster with moderate Educational Participation Rates which has 16 provinces as members, the second cluster is a cluster with high Educational Participation Rates which has 13 provinces as members, and the third cluster is a cluster with low Educational Participation Rates which has 5 provinces as members.

Keywords: Education Participation Rate, Fuzzy Subtractive Clustering, GUI R