

ABSTRAK

Guru memiliki peran penting dalam pendidikan, jasanya mampu menciptakan generasi-generasi yang berkualitas, baik secara intelektual dan akhlaknya. Berdasarkan data yang bersumber dari Roadmap Manajemen Aparatur Sipil Negara (ASN) dan Perencanaan Formasi Tahun 2014, penyebaran guru di tiap daerah di Indonesia tidaklah merata. Oleh karena itu penelitian ini bertujuan untuk pemetaan penyebaran guru diseluruh Kabupaten/Kota di Indonesia. Pada penelitian ini pengelompokkan data menggunakan Algoritma K-Medoids dan K-Means dengan dataset yaitu jumlah guru, jumlah peserta didik dan jumlah sekolah jenjang SMP. Algoritma K-Medoids menghasilkan *cluster* 1 yang memiliki kekurangan guru sebanyak 302 Kabupaten/Kota, pada *cluster* 2 yang memiliki kelebihan guru sebanyak 77 Kab/Kota, sedangkan *cluster* 3 yang memiliki cukup guru sebanyak 135 Kab/Kota. Sedangkan Algoritma K-Means menghasilkan *cluster* 1 yang memiliki kekurangan guru sebanyak 363 Kabupaten/Kota, *cluster* 2 yang memiliki cukup guru sebanyak 125 Kabupaten/Kota sedangkan *cluster* 3 yang memiliki kelebihan guru sebanyak 26 Kabupaten/Kota. Manfaat dari penelitian ini sebagai penunjang keputusan pemerataan guru seluruh Kabupaten/Kota di Indonesia yang masih kekurangan atau kelebihan guru.

Kata kunci: Penyebaran Guru, Data Mining, Clustering, K-Medoids, K-Means

ABSTRACT

The teachers have an important role in education. Their services can create a qualified generation, both intellectually and morally. Based on the data sourced from the Roadmap for State Civil Servants (ASN) and Formation Planning in 2014, the distribution of the teachers in each region in Indonesia is unequal. Therefore, this study aims to map the distribution of the teachers in all districts or cities in Indonesian. In this study, the data grouping used the K-Medoids and K-Means Algorithms with the dataset the number of the teachers, the number of the students, and the number of The Junior High School level. The results from K-Medoids Algorithms were cluster 1 had shortage teachers by 302 of district or city, in cluster 2 had a overladed teachers by 77 of districts or city meanwhile, cluster 3 had enough as much as 135 of district or city. The result K-Means Algorithms were cluster 1 which had a shortage teachers by 363 of district or city, in cluster 2 which had enough teachers by 125 of district or city whereas cluster 3 had overloaded of the teachers as much as 26 of district or city. The benefit of this research is to support the decision of the teachers' alignment across districts or cities in Indonesia that are still lacking or surplus.

Keywords: *The Distribution of the Teachers, Data Mining, Clustering, K-Medoids, K-Means*