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Sijie Liu* (sliu28@crimson.ua.edu), University of Alabama, Mathematics Department, Gordon Palmer Hall, Box 870350, Tuscaloosa, AL 35487. *A Clustering Method Based on Adaptive Metaheuristic Algorithm for Teaching Assessment.*

A correct and comprehensive class evaluation result will stimulate the Instructors' enthusiasm for teaching. The study aims to develop an efficient approach for improving the accuracy of teaching quality assessment by using an adaptive Clustering approach. The introduced clustering technique is based on k-means such that the data is partitioned into K similarity groups (clusters). However, traditional k-means is not perfect because of highly relying on the selection of initial conditions and can easily get involved in the premature convergence problem. We will present an adaptive Cat swarm optimization (CSO) algorithm, and the new CSO clustering approach was tested and results indicated the modification made on the CSO can obtain more accurate outcomes comparing to the traditional k-means method. We can consider it as a sufficiently accurate clustering method to attribute to our future teaching assessment. (Received September 16, 2014)