

Application of Fuzzy Integral AHP on the Teacher Evaluating System

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ABSTRACT

The career ladder program is an imperative to contribute to teachers' professional development. This research is given the aim to construct teachers' performance evaluation contents and proportion values so as to popularize the career ladder program for teachers in junior high and elementary schools. Additionally, this study aimed to examine the feasibility of and differences between using analytic hierarchy process and fuzzy integral to determine proportion values. It is anticipated that the research results may be applied as indicators of teacher performance evaluation for educators, schools, and government educational departments. This research explored a variety of theories regarding teacher career ladder systems. The target school surveyed was Fusing Junior High School, a public school in Changhua County, where the researcher worked as a teacher. Delphi Method was applied to create questionnaires so as to examine and determine the evaluation contents for teacher performance evaluation. The research results suggested that the evaluation contents should include four categories, 12 dimensions, and 55 items. Furthermore, significant differences were also found between the results by using analytic hierarchy process and fuzzy integral. And from analysis of the coefficient of variation, coefficient of variation of the fuzzy integral is bigger than coefficient of variation of the Analytic Hierarchy Process, therefore the utilizing fuzzy integral has the difference and distinguish degree, thus, in the teacher evaluating system the fuzzy integral is more suitable to this research.

Keywords : The teacher evaluating system ; Multiple Criteria ; Decision Making ; Delphi Technique ; Analytic Hierarchy Process ; fuzzy integral

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