

An Interval AHP Technique for Classroom Teaching Quality Evaluation

ABSTRACT

Classroom teaching evaluation is one of the most important ways to improve the teaching quality of mathematics education in higher education, and it is also a group decision making problems. Meanwhile, there is some uncertain information in the process of evaluation. In order to deal with this uncertainty in classroom teaching quality evaluation and obtain a reliable and accurate evaluation result, an interval analytic hierarchy process (I-AHP) is employed. To begin with, the modern evaluation tool named RTOP is adapted to make it more consistent with the characteristics of the discipline. In addition, the evaluation approach is built by using the I-AHP method, and some details of weights of the criteria and assessors are developed, respectively. Thirdly, a case study has been made to verify the feasibility of the assessment approach for classroom teaching quality evaluation on mathematics. Finally, a comprehensive evaluation of classroom quality under an interval number environment is conducted, and some results analyses and comparisons are also discussed to show that the proposed approach is sound and has a stronger ability to deal with uncertainty.