

The Fuzzy Optimum Seeking Method of High School Teachers' Reeducation Plan

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Abstract: This paper adopts optimum ordering graph, fuzzily to optimize the training content and pattern of high school teachers and puts forward the fuzzy optimum seeking method of reeducation plan of high school teachers.

Keywords: reeducation, fuzzy optimum seeking method, fuzzy decision optimum ordering graph

1. Preface

Due to the first-line work of school-teaching, high school teachers can't allocate adequate time to reeducation, which requires us to optimize training courses and pattern and work out the best training plan, so as to achieve the best training outcome, For this reason, the fuzzy optimum seeking method of the reeducation plan of high school teachers is brought about.

2. The fuzzy optimum seeking method of reeducation plan

(1) Determination of training objectives

To meet the needs of secondary education development, we set the training objective of high school teacher as follows:

- a. To update the education mentality and to keep abreast of the education development.

- b. To enlarge the education theory and skills and to enhance the ability to do scientific research and educational reform.
- c. To renew the knowledge construction to meet the requirements of new textbooks.
- d. To master updated education techniques, and to reform education methods.

(2) The fuzzy optimum seeking method of training content

The training content contains a lot. Here fuzzy decision optimum ordering graph is adopted to optimize the training content, so that the training objectives can be fulfilled as many as possible.

Let the training subject set $N=\{n_1, n_2, \dots, n_k\}$, and draw up the fuzzy decision optimum ordering graph.

	n_1	n_2	....	n_k	Σ
n_1	r_{11}	r_{12}	....	r_{1k}	s_1
n_2	r_{21}	r_{22}	....	r_{2k}	s_2
\vdots					
n_k	r_{k1}	r_{k2}	....	r_{kk}	s_k

r_{ij} represents that subject n_i betters n_j in the influence on the implementation of the objective, i.e. the advantageous degree of influence on the implementation of the objective.

And

$$r_{ij} = \begin{cases} 0, & \text{if } i = j \\ 1 - r_{ji}, & \text{if } i \neq j \end{cases} \quad 0 \leq r_{ij} \leq 1, \quad s_i = \sum_{j=1}^k r_{ij}$$

$i=1,2,\dots,k$.

Then arrange s_1, s_2, \dots, s_k in ordinal order and correspondingly get the optimizing order of the training subjects.

Repeat the above practice, and get the optimizing order of the training subject's influence on individual training objective respectively. Through the statistical analysis of all the individual ordering, get the synthetic ordering of the training subject's influence on the implementation of the overall objective.

(3) The fuzzy optimum seeking method of training pattern

Let training pattern set $M=\{m_1, m_2, \dots, m_a\}$, and draw up a fuzzy decision optimum ordering graph.

	m_1	m_2	....	m_a	Σ
m_1	r_{11}	r_{12}	....	r_{1a}	S_1
m_2	r_{21}	r_{22}	....	r_{2a}	S_2
\vdots					
m_a	r_{a1}	r_{a2}	....	r_{aa}	S_a

r_{ij} represents that training pattern m_i betters m_j in the influence on one training subject, i.e. the advantageous degree in the influence on one subject. Then arrange S_1, S_2, \dots, S_a in ordinal order and correspondingly get the optimizing order of training pattern's influence on one training subject. Repeat the above practice, and get the optimizing ordering of each training pattern's influence on each training subject respectively.

(4) The identification of the optimum training plan

According to the above optimizing ordering, we identify the training content and training pattern and thus get the optimum training plan.

3 References

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