The Selection Research of Student Judges based on AHP in the "International Trade Comprehensive Training"

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Abstract

In order to improve the enthusiasm of students' learning and enhance the participation for students, the course of international trade comprehensive training is carried out by adopting the evaluation method of student judges. This paper applies AHP method to analyze the factors of judging students' judges, and the key factors are obtained finally. The students are guided to actively participate in the teaching process of practical courses through the factors.

Keywords

AHP, student judge, practical course.

1. Introduction

The "International trade comprehensive training" is a comprehensive curriculum for the international economy and trade major. The highlight of the course is to introduce the international economic and trade competition mode into the course, and select the student judges to participate in the evaluation of the final results of the course. It is a beneficial attempt to carry out flipped classroom in practical teaching[1]. "International trade comprehensive training" course is usually offered for junior students. Before the course, the courses offered by students of the international trade major are international trade practice, international settlement, international business negotiation and international business etiquette. The purpose of this course is to conduct a comprehensive practical assessment on the students' early theoretical knowledge, so that the theories can be fully combined with the practice[2].

2. Research Model

2.1. AHP

Analytic hierarchy process (AHP) is a decision-making method[3]. It contains three parts: the ultimate aim or problem, all of the possible solutions, called alternatives, and the criteria that will judge the alternatives on. AHP provides a rational framework for a needed decision by quantifying its criteria and alternative options, and for relating those elements to the overall aim[4].

2.2. AHP Model of Curriculum Evaluation

In the curriculum evaluation of "International trade comprehensive training", the aim is to select student judges. There are 5 criterias to be considered,which are English expression ability (C1), Digging ability of product features (C2), Bargainging ability (C3), Business etiquette (C4) and Tacit understanding of teamwork (C5). There are 3 alternatives in the model that are students who have participated in the competition and won prizes (P1), class cadres (P2) and ordinary students (P3), see Fig. 1.
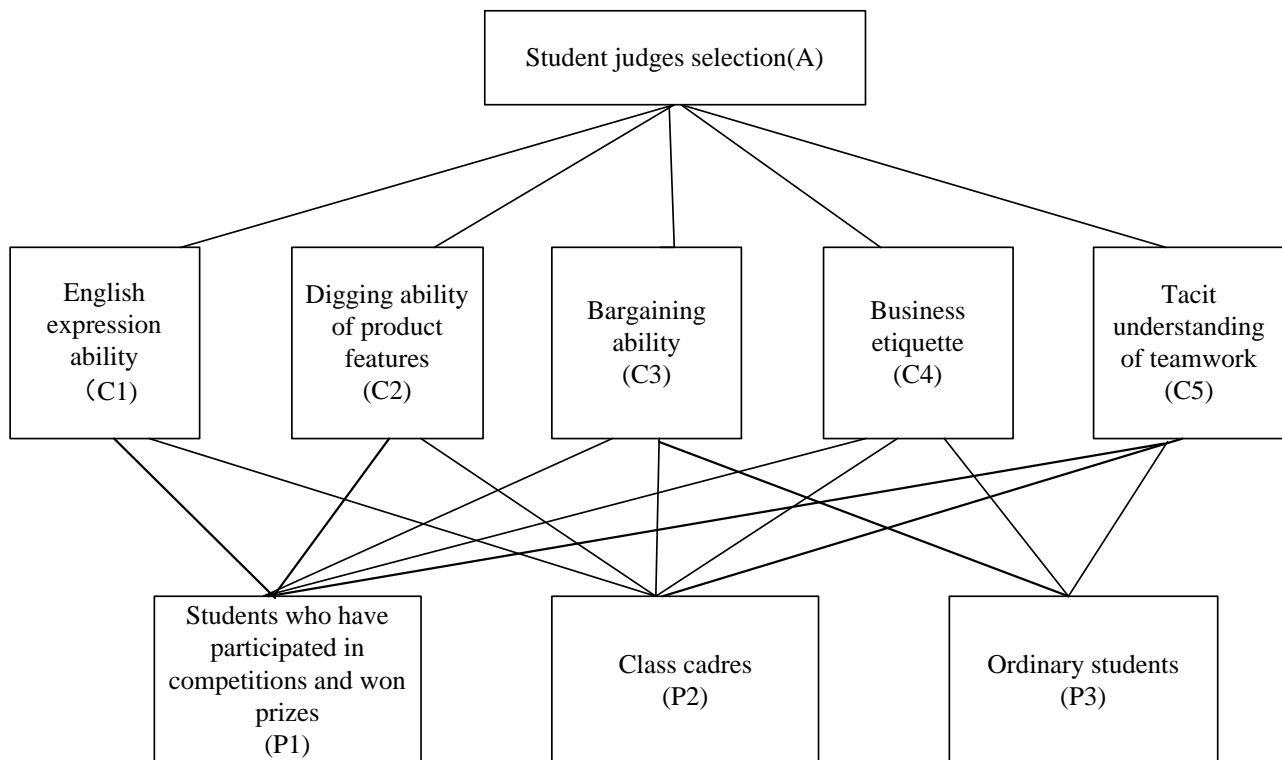
Fig 1. AHP model of student judges selection

3. Empirical Analysis

3.1. Data Collection

The data of this paper are collected from 137 students majored in international economics and trade in the school of economics and management of Hubei Institute of technology. These students are surveyed by questionnaire. There are 98 questionnaires collected and 82 questionnaires are valid. In the students surveyed, there are 7 students who have participated in the competition and won the prize, accounting for 0.085%, there are 18 class cadres, accounting for 21.95%, and the rest are ordinary students.

3.2. Judgement Matrix

According to the questionnaires and Likert scale, the A-C, C-P judgment matrixes are established, and the consistency is tested, see Table 1-6. According to the Table 1-6, the overall consistency test of the model can be obtained, which is $CR = 0.0238 < 0.1$. All the $C.R.$ in the Table 1-6 are below 0.1, so all the judgement matrixes are accpetable.

Table 1. Judgement matrix and consistency test (A-Ci)

A	C1	C2	C3	C4	C5	W(A-Ci)
C1	1	5	7	5	3	0.5373
C2	1/5	1	1/3	1	1/3	0.0671
C3	1/7	3	1	3	1	0.1544
C4	1/5	1	1/3	1	1/3	0.0671
C5	1/3	3	1	3	1	0.1740

$\lambda_{max} = 5.2319$, $C.I. = 0.0580$, $C.R. = 0.0518 < 0.1$

Table 2. Judgement matrix and consistency test (C1-Pi)

C1	P1	P2	P3	W(C1-Pi)
P1	1	5	7	0.730612
P2	1/5	1	3	0.18842
P3	1/7	1/3	1	0.080968

$\lambda_{max} = 3.0649$, $C.I. = 0.0330$, $C.R. = 0.0238 < 0.1$

Table 3. Judgement matrix and consistency test (C2-Pi)

C2	P1	P2	P3	W(C2-Pi)
P1	1	3	5	0.636977
P2	1/3	1	3	0.258309
P3	1/5	1/3	1	0.104714

$\lambda_{max} = 3.0385$, $C.I. = 0.0193$, $C.R. = 0.0247 < 0.1$

Table 4. Judgement matrix and consistency test (C3-Pi)

C3	P1	P2	P3	W(C3-Pi)
P1	1	2	5	0.581509
P2	1/2	1	3	0.309012
P3	1/5	1/3	1	0.109479

$\lambda_{max} = 3.0037$, $C.I. = 0.0019$, $C.R. = 0.0008 < 0.1$

Table 5. Judgement matrix and consistency test (C4-Pi)

C4	P1	P2	P3	W(C4Pi)
P1	1	2	7	0.59172
P2	1/2	1	5	0.333197
P3	1/7	1/5	1	0.075084

$\lambda_{max} = 3.0142$, $C.I. = 0.0071$, $C.R. = 0.0018 < 0.1$

Table 6. Judgement matrix and consistency test (C5-Pi)

C5	P1	P2	P3	W(C5-Pi)
P1	1	3	9	0.655336
P2	1/3	1	7	0.289759
P3	1/9	1/7	1	0.054905

$\lambda_{max} = 3.0803$, $C.I. = 0.0402$, $C.R. = 0.0243 < 0.1$

3.3. Comprehensive Weight and Ranking of Model

According to section 3.2, the weight of the three types of student judges can be obtained, which is $W = \begin{bmatrix} 0.6788 & 0.2391 & 0.0820 \end{bmatrix}$. It can be seen that the weight for students participating in the competition is 0.6788, the weight for class leaders is 0.2391 and he weight for ordinary students is 0.0820. Therefore, when selecting student judges for the "comprehensive international trade training". Students who have participated in the competition should be given priority, followed by class cadres and ordinary students.

4. Conclusion

By using AHP model, the evaluation system of international trade comprehensive training is constructed, the weight of the three types of student judges can be obtained. The selection standard of student judges of the "comprehensive international trade training" is obtained, which can improve the effect of the course and the enthusiasm of students' participation.

Acknowledgements

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