Construction of Performance Evaluation System of College Student Cadres Based on AHP

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Abstract: College student cadre is the organizer, coordinator and executor of college education management. It is of great significance to train student cadre well for colleges and universities to implement moral education and strengthen student work. At present, there is a lack of assessment mechanism and system for student cadre work in Chinese colleges and universities. The performance evaluation of student cadres in colleges and universities is an important content to strengthen the work of student cadres. This paper USES the analytic hierarchy process (AHP) to design the evaluation index system of student cadres in order to get an objective evaluation of student cadres.

Keywords: Analytic hierarchy process, Student cadres, The performance evaluation

1. Introduction

In the work of colleges and universities, student cadres are the coordinators for the implementation of all the work in colleges and universities, as well as the link between teachers and students to communicate. Therefore, it is necessary to strengthen the performance evaluation of student cadres, as a reference basis for evaluation of awards, evaluation of admission to the Party; To motivate and urge student cadres to be positive; In the assessment and evaluation to find shortcomings, improve awareness, constantly improve their own, so as to promote the continuous progress of college students work.

2. Significance of Performance Evaluation of College Student Cadres

College student cadres are an important force in the normal operation of the school and play an indispensable role in the class. It is of great practical significance to fully understand and play the role of student cadres. The current education system lacks of scientific performance evaluation system for college student cadres, and there are some problems, such as unscientific and imperfect evaluation index system and lack of operability performance evaluation index system. Scientific and efficient evaluation system is in urgent need of construction.

2.1 Play an Exemplary Role

Performance evaluation is to evaluate the performance of students in all aspects of their work, study and life. Scientific cadre performance evaluation promotes cadre team institutionalization, systematization and regularization construction, and further enhances student cadre consciousness, so as to better accept the supervision of the majority of students and play the vanguard exemplary role of "leader".

2.2 Strengthen Student Management

Student cadres are the implementers of the communication and management of university policies and instructions. The quality of college cadres affects the completion of school work. To construct the performance evaluation system, carry on the scientific, comprehensive and objective evaluation to the cadre's working ability, urge the cadre to check the loopholes and fill the gaps, and guarantee the operation of the school's various work.

2.3 Give Full Play to the Role of Encouragement and Spur

According to L.W.Porter and E.E.Lawler incentive mode, in terms of awards and awards, a scientific performance evaluation system can ensure the fairness of assessment, create a good employment environment, form a positive employment orientation, mobilize students' work enthusiasm, and motivate student cadres to improve work efficiency.

3. Evaluation Index and Model Construction

This paper USES analytic hierarchy process (AHP) to construct the performance evaluation model of college student cadres, analyzes the influencing factors to design evaluation indexes and construct judgment matrix, and obtains the weight of different factors.

3.1 Construction of Performance Evaluation Model for College Student Cadres

Based on experience, this paper divides the performance evaluation of college student cadres into four second-level indexes, such as class management, work identity, personal quality and work ability, and subdivides each second-level index into four third-level indexes.
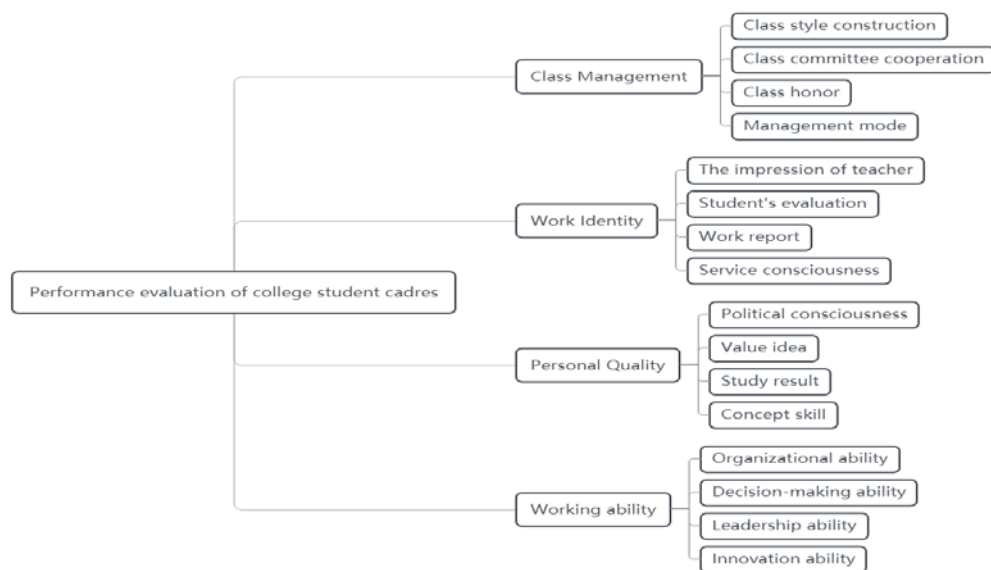

Fig.1 Performance Evaluation Model of College Student Cadres

According to the established satisfaction evaluation index (Figure 1), the comparative judgment matrix is constructed by comparing the importance of each factor affecting the same criterion. Among them, the meaning of a_{ij} is the relative importance of a_i to a_j. The relative importance is based on Thomas Setty's scale of $1 \sim 9$ (see Table 1). Matrix satisfies: $a_{ij}>0$; $a_{ii}=1$; $a_{ij}=1/a_{ji}$(I, j=1,2…n).

The criterion layer judgment matrix A_1 class management judgment matrix B_1, job identity judgment matrix B_2, personal quality judgment matrix B_3, and work ability judgment matrix B_4 are respectively shown as follows.

$$\begin{bmatrix} 1 & 1/3 & 2 & 5 \\ 3 & 1 & 4 & 7 \\ 1/2 & 1/4 & 1 & 2 \\ 1/5 & 1/7 & 1/2 & 1 \end{bmatrix} \begin{bmatrix} 1 & 4 & 1/3 & 2 \\ 1/4 & 1 & 1/8 & 1/2 \\ 3 & 8 & 1 & 5 \\ 1/2 & 2 & 1/5 & 1 \end{bmatrix} \begin{bmatrix} 1 & 2 & 1/3 & 1/5 \\ 2 & 1 & 1/2 & 1/4 \\ 3 & 2 & 1 & 1/2 \\ 5 & 4 & 2 & 1 \end{bmatrix} \begin{bmatrix} 1 & 3 & 5 & 8 \\ 1/3 & 1 & 2 & 4 \\ 1/5 & 1/2 & 1 & 3 \\ 1/8 & 1/4 & 1/3 & 1 \end{bmatrix}$$

$$\begin{bmatrix} 1 & 3 & 1/2 & 4 \\ 1/3 & 1 & 1/4 & 2 \\ 2 & 2 & 1 & 6 \\ 1/4 & 1/2 & 1/6 & 1 \end{bmatrix}$$

3.2 Determination of Evaluation Index Weight

According to the above judgment matrix, the initial weight coefficient and normalized weight coefficient are calculated according to the formula. The weight of each index is shown in Table 1.

Table 1 Index Weight Coefficient

Level 1 Indicators	The secondary indicators		Level 3 indicators	
	Indicators	The weight	indicators	The weight
Performance evaluation of college student cadres	The class management	0.2488	Class construction	0.2279
			Class committee cooperate	0.0630
			Class honours	0.5900
			Management style	0.1192
	Work identity	0.5574	The teacher impressed	0.0957
			The students evaluation	0.1584
			Service consciousness	0.2947
			The work report	0.5632
	Personal quality	0.1302	Political consciousness	0.5861
			Values	0.2263
			Study result	0.1311
			Conceptual skills	0.0566
	Work Ability	0.0636	Ability of organization	0.3001
			Decision-making ability	0.1225
			Ability to lead	0.5046
			The innovation ability	0.0728

3.3 Consistency Index Test

The stochastic consistency ratio (CR) is calculated according to the following formula. Where m is the subtarget number of the level under test, lambda MAX is the largest characteristic root, and lambda I is the characteristic root of the judgment matrix.

$$CR = \frac{CI}{RI} \quad CI = \frac{\lambda max - m}{m-1} \quad \lambda max = \frac{\sum_{i=1}^{m} \lambda_i}{m} \quad \lambda_i = \frac{\sum_{j=1}^{m} a_{ij} w_j}{w_i}$$

In this paper, M =4, RI=0.8845. The CR of this evaluation is less than 0.1, which proves that the consistency of each matrix meets the requirements.

4. Explanation of Evaluation Indicators

This paper puts forward a performance evaluation model of college student cadres, which is composed of 16 evaluation indexes related to student cadres. Some of these indicators, such as class honor, academic performance and other quantitative indicators, need to be based on objective results to get the index score. Other indicators shall be evaluated by questionnaires and other means, and the scores of each indicator shall be calculated according to the data and weight. Finally, the final weighted score shall be calculated according to the average arithmetic score of each indicator combined with the weight. Thus, this score shall be the final score. Compare and rank student cadres' achievements in various departments such as colleges, student unions, societies and classes.

The final comprehensive score is a relative score, which can be directly rewarded and punished according to the ranking without setting a pass line, so as to give full play to the role of motivation and spur.

4.1 Class Management

Class management is an art as well as a science. It is an intuitive index to evaluate student cadres. Class management is a dynamic and complicated process, which is a purposeful, planned and step-by-step activity. It is practical and operable to evaluate the performance of university cadres from the aspects of class wind construction, class committee cooperation, class honor and management style.

(1)Class style construction is one of the important work of student cadres, it reflects a class collective ideological life and study of the common orientation, the university cadres have a leading model role in class style, good class style reflects the leadership and guidance of student cadres.

(2)Class committee cooperation is the basis of efficient operation of a class. The efficient operation mode of division of labor and cooperation reflects the coordination and combining ability of student cadres in personnel.

(3)Class honor is the result of the joint efforts of cadres and students, a good cadre will lead the class to move forward, strive for excellence. Cadres who only care about individual honor regardless of class honor do not have sufficient sense of collective honor, which reflects that cadres do not have prestige and cannot mobilize students.

(4)Different management methods will bring different results. The students in the class are the direct recipients of the management mode of student cadres, and can judge whether the management mode of student cadres is satisfactory or not at the end of each semester.

4.2 Work Identity

University cadres are the key to the completion of various work in the school, and their recognition of work affects the completion of activities. Job identity includes teacher impression, student evaluation, work report and service consciousness.

(1)The teacher is the cadre work handover, from the instructor, the communist Youth League committee of the teacher, the teacher of the class cadres of the impression of evaluation can be on the cadre of the efficiency of a more objective evaluation.

(2)Students are the cadres of the direct contact, in the morning and night to get along with the cadres of the human affairs have a more in-depth understanding. The cadres with strong action power, high efficiency and strong sense of collective honor are highly recognized by the students.

(3)Work report can understand what the student cadres do and think, written material reflects the cadre's ability to express, thinking, future planning, work attitude and other aspects of the quality. In this part of the assessment, teachers and students are used to grade the written materials of student cadres each time, and the final score is formed according to the weight combined with the reality.

(4)The consciousness decided the behavior habit, class cadre who does not have the service consciousness is impossible to have the stronger service ability. College cadres should pay attention to the aspirations of students, think of students, students urgent, dedicated service for students, rooted in the student community, do a good job between teachers and students bond bridge.

4.3 Personal Quality

The performance evaluation of student cadres should not only be limited to work management, but also be reflected in the personal quality of cadres. Political consciousness, value idea, study result, concept skill are important index that measures cadre individual quality.

(1)Firm political thought, strong political stand, actively support the leadership of the Communist Party of China is the ideological basis of the work of student cadres. The assessment of political thought can be considered by student cadres' learning score and growth rate on learning

platforms such as Powerful country and Sanjin Pioneer.

(2)A qualified student cadre must have a correct world outlook, outlook on life, values. The socialist core values guide the construction of cadres' quality and lead the joint effort in values. The appraisal of the values of university cadres should pay attention to the strong politics, new thinking, practical work, upright style, fine business and strict discipline.

(3)the modern society requirements for a talented person's are compound and diversified. The assessment of learning can be combined with the student cadre's academic performance ranking in the class and the necessary grades such as CET-4 and CET-6.

(4)The conceptual skills of college cadres refer to the cadres' ability to abstract and conceptualize the relationship through processing and refining their own viewpoints. The cadre who USES the concept skill can regard the class as a whole, and can be familiar with the relationship of each group in the class, and correctly use their various skills to deal with various problems.

4.4 Working Ability

Organizational ability, decision-making ability, leadership ability and innovation ability embody the working ability of student cadres.

(1)The trust degree of organizational ability reflects the overall coordination ability of cadres, including the arrangement of affairs and people. Whether the ability of organization and coordination can be brought into full play is directly related to the actual effect of cadres in performing their duties, as well as the satisfaction and trust of teachers and classmates.

(2)The working ability of student cadres determines the operation of school things. The efficient organization and decision-making of student cadres' activities reflects the overall leadership ability of student cadres.

(3)Decision-making ability means that cadres must think carefully and consider many factors when doing anything. Before making major work decisions, do not jump to conclusions without sufficient research and mature thinking.

(4)Leadership determines the whole management level of a class, which refers to a kind of power that can make students unite in the process of work. Cadres have strong leadership ability, and the whole class can have outstanding performance in various activities.

The assessment of these four items adopts a combination of class students' scoring and student cadres' mutual evaluation, and scores are obtained after each activity.

5. Conclusion

This model directly uses indexes closely related to student cadres' study and work, and calculates performance scores based on the index data of performance assessment, aiming to highlight the procedural, standardized and diversified evaluation of student cadres' performance assessment. In the application of this model, colleges and universities are required to have clear and complete rules for assessment and scoring, and each evaluation board and its sub-indexes can be quantified. Due to the limited space, it is not necessary to show the detailed calculation process of each index score, but to build the model and solve the substitute value.

In this paper, when the AHP is used to calculate the comprehensive scores of each student cadre, the judgment matrix constructed is not unique, and each university can set the weight of each section according to the specific situation.

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