



# Research on Quality Evaluation of Student Party Member Development Based on Six Sigma Management Method

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**Abstract.** The development of Party members is a regular and important task in Party building, a fundamental project of the new great project of Party building, and an important component of Party member team construction. As a platform for talent cultivation, universities bear the important mission of educating people for the Party and the country. How to scientifically and effectively evaluate the quality of the development of college student party members is an important manifestation of actively responding to the 16 character work policy of developing party members in the Party Constitution. This paper applies the Six Sigma management method to the quality management and quality evaluation of student party members. Through the process analysis of student party members' quality definition, quality measurement, quality analysis, quality improvement and control, and other links, it analyzes the important factors affecting the quality of student party members' development in a qualitative and quantitative exploratory way, so as to achieve accurate quality management, maintain the progressiveness and purity of the party, and ensure the quality of party members to promote the development of the party's various undertakings.

**Keywords:** Six Sigma Management Method, Student Party Member Development, Quality Management, Quality Evaluation

## 1 Introduction

The Six Sigma management approach began in the mid-1990s and was initially developed by GE. It includes a set of scientific tools and management methods, which is a data-based quality management method and business strategy, designed and improved through the use of DMAIC (Define, Measure, Analyze, Improve, Control) or DFSS (Design for Six Sigma) processes<sup>1</sup>. This article explores the application of this method in the quality management and evaluation of student party member development. By using scientific quality scale tools to evaluate the quality issues of party member development, targeted improvements and optimizations can be made to the quality issues of

student party member development, thereby further reducing the quality issues of student party member development.

## **2 Defining the Quality of Student Party Member Development Based on Six Sigma Management Method**

This article intends to conduct a quality evaluation of a student party member, first defining the quality of student party member development<sup>2</sup>. Based on relevant literature and actual situations, the quality of student party member development in this article is evaluated from five aspects: political consciousness, moral quality, professional skills, practical ability, and mass foundation. The first reason for the specific evaluation is that the Party Constitution and the Working Rules of the CPC for Recruiting Party Members, "adhere to the standards for Party members stipulated in the Party Constitution and always put political standards first"; The second is the "Standards for Party Building Work of Ordinary Higher Education Students", which "strengthen the quality of development, strictly control the development threshold, conduct strict political review, thoroughly examine whether the motivation of the development objects to join the Party is correct, whether they have a deep understanding of the Party, whether they understand the obligations and rights of Party members, whether they abide by the Party Constitution, Party rules and discipline, whether they firmly follow the Party's words and ensure political qualification. Comprehensive quality is an important assessment content for developing student Party members, comprehensively examine specific standards such as ideological and political, ability quality, moral character, and practical performance, pay attention to students' consistent performance and critical moment performance, self-evaluation, public evaluation, learning situation, and social practice, and prevent academic performance from being the only condition for Party member development."

In terms of political consciousness, it is mainly examined from four aspects: loyalty to the Party, correct motivation to join the Party, proactive learning and improvement, and proactive ideological reporting. In terms of moral quality, it is mainly examined from the perspectives of collectivism, social morality and family virtues, and compliance with laws and regulations. Specifically, one aspect is based on the requirement of having no bad habits in the current information and network era, and being able to objectively and fairly view reality and network events as one of the aspects to be examined. The second is that the majority of applicants for party membership have social positions in the National People's Congress, requiring integrity and honesty. In terms of professional skills, it is mainly evaluated from four aspects: correct learning attitude, comprehensive test ranking, professional hands-on ability, and innovative practical ability. In terms of practical ability, it is mainly evaluated from four aspects: winter and summer social practice activities, returning home social practice, labor training, cultural and artistic activities, and internship performance. The basic aspects of the masses are mainly examined from four aspects: civilized friendship, social welfare activities, class and youth league branch activities, and willingness to contribute.

At the same time, literature research, Delphi method, etc. were conducted on the above five aspects. Through repeated investigations and identification, 20 secondary quality management evaluation indicators were finally determined as shown in the table below<sup>3</sup>. Q1 represents having a firm political ideal and belief, being loyal to the Party, taking the lead in promoting and implementing the Party's line, principles, and policies, and maintaining a high degree of consistency with the Party Central Committee; Q2 indicates that the motivation to join the party is correct, and one agrees with the party's purpose, taking joining the party as a symbol of political stance and value orientation; Q3 indicates actively participating in party training, consciously learning and improving the theoretical knowledge level of the party after class, such as youth learning, learning to build a strong country, etc; Q4 indicates taking the initiative to report on thoughts and engage in heart to heart talks with the party organization. Q5 indicates a strong sense of collectivism and a sense of responsibility; Q6 represents honesty and trustworthiness, filial piety to elders, and adherence to social and family virtues; Q7 means having no bad habits and being able to objectively and fairly view reality and online events; Q8 stands for abiding by laws and regulations, being honest and upright, having a sense of discipline and legal awareness. Q9 indicates a positive attitude towards learning, clear learning goals, and a positive attitude towards progress; Q10 indicates excellent grades, ranking in the top 20% of the class in the comprehensive test; Q11 indicates strong professional hands-on ability and actively participates in professional skills competitions at all levels; Q12 indicates strong innovation ability, good at identifying problems, actively participating in innovation and entrepreneurship as well as various entrepreneurship and entrepreneurship competitions. Q13 represents actively participating in winter and summer social practice activities; Q14 represents diligent learning and effective utilization, actively participating in social practice upon returning home, and actively providing social services and labor training; Q15 indicates a wide range of interests, versatility, and active participation in both on campus and off campus cultural and artistic activities; Q16 represents excellent internship performance, proactive work, humble and eager to learn, hardworking, and highly praised. Q17 represents respect for teachers and love for classmates; Q18 represents taking the lead in participating in public volunteer services and social welfare activities; Q19 represents active dedication, organization, planning, and participation in class and youth league activities; Q20 represents being willing to contribute without expecting anything in return.

At the same time, ten members, including the party introducer, active party members, roommates, party members of the branch, class members, representatives of league members, party affairs class teachers, full-time counselors, full-time teachers, and full-time organizers, were invited as expert members to conduct a quality evaluation of the development of a student party member. The above 20 quality problems were classified more clearly to grasp the dimensions of quality problems, which is more conducive to improvement and control in the later stage<sup>4</sup>.

**Table 1.** Questionnaire on the Quality of Student Party Member Development by the First Expert

Primary indicators	Secondary indicators	Collection of comments on the importance of quality issues
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		A	B	C	D	E
Political consciousness	Q1					○
	Q2					○
	Q3					○
	Q4				○	
Moral character	Q5				○	
	Q6				○	
	Q7			○		
	Q8					○
Professional skills	Q9				○	
	Q10			○		
	Q11			○		
	Q12			○		
Practical ability	Q13			○		
	Q14				○	
	Q15			○		
	Q16			○		
Mass base	Q17				○	
	Q18			○		
	Q19				○	
	Q20					○

### 3 Measurement of the Quality of Student Party Member Development Based on Six Sigma Management Method

The above Table 1 adopts the Likert five level scale method, which is established after removing related content. Another 9 experts were asked to use this questionnaire to conduct a quality problem investigation on the development of a student party member. The first expert objectively evaluated 20 identified quality problems. Calculate the membership matrix through the above survey form and quantify the expert survey questionnaire. The set of comments on the importance of quality issues represents unimportant, somewhat important, quite important, very important, and extremely important in order from A to E. At the same time, the evaluation ratio is used as the membership degree of a single factor, and a membership matrix is established<sup>5</sup>. Each row in the matrix represents the membership degree of the secondary indicator to the five comment sets. The first to fifth columns of the matrix correspond to the five comment sets A, B, C, D, and E. According to Table 1, the secondary indicators include five survey contents: political consciousness, moral quality, professional skills, practical ability, and mass foundation. These five contents belong to the number of comment sets A, B, C, D, and E, which are 1, 1, 1, 1, and 1 respectively. It can be calculated that the proportion of comments A, B, C, D, and E is all 1/5. The evaluation ratio is used as the

degree of membership to comments A, B, C, D, and E. Therefore, the degree of membership of political consciousness to the five comments A, B, C, D, and E is (0,0,0,0.25,0.75). As shown in the first row of the personnel factor membership matrix R for political consciousness. Similarly, the membership matrix R moral quality, R professional skills, R practical ability, and R mass foundation can be calculated. As follows:

$$R = \begin{pmatrix} 0 & 0 & 0 & 0.25 & 0.75 \\ 0 & 0 & 0.25 & 0.5 & 0.25 \\ 0 & 0 & 0.75 & 0.25 & 0 \\ 0 & 0 & 0.75 & 0.25 & 0 \\ 0 & 0 & 0.25 & 0.5 & 0.25 \end{pmatrix} \tag{1}$$

The level of each indicator in the above comment set directly affects the size of the quality factor. Therefore, different weights are assigned to each level in the quality issue importance comment set to determine the quality issue importance level. A. The weights of B, C, D, and E are 1/25, 3/25, 5/25, 7/25, and 9/25, respectively. Quality importance weight allocation set  $W_{comments}=(W_A, W_B, W_C, W_D, W_E)=(1/25, 3/25, 5/25, 7/25, 9/25)$ , with fuzzy transformation  $B_{indicators}=W_{comments} R^T=(0.34, 0.28, 0.22, 0.22, 0.28)$ . The  $B_{indicator}$  is the weight of the second level indicator in the evaluation set A, B, C, D, and E, reflecting the evaluation value of the quality importance indicator factor. Through a series of calculations, the first expert's evaluation data on the importance of quality issues in the development of a student party member is obtained<sup>6</sup>. Similarly, the other 9 experts investigated the quality of the student's party member development, and after fuzzy preprocessing<sup>7</sup>, the scores were as follows: the second expert's  $B_{index}=(0.36, 0.28, 0.24, 0.26, 0.26)$ ; Third expert  $B_{index}=(0.32, 0.26, 0.24, 0.22, 0.32)$ ; The fourth expert's  $B_{index}$  is (0.32, 0.24, 0.26, 0.24, 0.26); The fifth expert's  $B_{index}$  is (0.34, 0.26, 0.22, 0.24, 0.3); The sixth expert's  $B_{index}$  is (0.36, 0.22, 0.26, 0.22, 0.3); The seventh expert  $B_{indicator}$  is (0.34, 0.24, 0.22, 0.24, 0.28); The eighth expert  $B_{index}=(0.36, 0.24, 0.26, 0.24, 0.28)$ ; The ninth expert  $B_{indicator}$  is (0.32, 0.24, 0.22, 0.24, 0.3); The tenth expert  $B_{index}=(0.34, 0.22, 0.24, 0.22, 0.3)$ ; Through consistency testing and weighted calculation, the overall quality issue weight of student party member development is determined to be  $B=(0.34, 0.248, 0.238, 0.234, 0.288)$ .

#### 4 Analysis of the Quality of Student Party Member Development Based on Six Sigma Management Method

Based on the evaluation data and calculations of 10 experts in the previous section, the overall weight of quality issues in the development quality of student party members was obtained. At the same time, the distribution map of the importance of quality inspection issues was obtained, as shown in Figure 1:

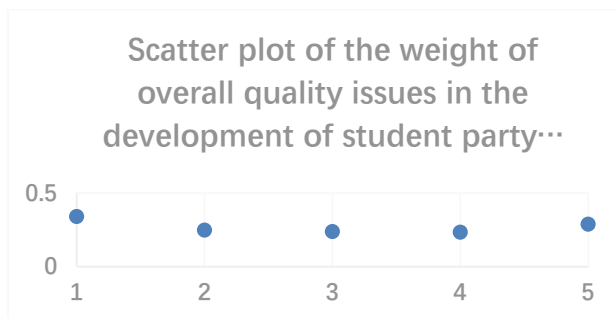


Fig. 1. Quality evaluation scatter plo

According to the above figure, it can be seen that the importance distribution of the five evaluation aspects. The horizontal axis 1, 2, 3, 4, and 5 respectively represent political consciousness, moral quality, professional skills, practical ability, and mass foundation. From the above Quality Evaluation Scatter plot, it can be seen that political consciousness has the highest importance, followed by mass foundation, moral quality, professional skills, and practical ability. Due to the fact that the quality of political consciousness accounts for the largest proportion, it indicates that the quality of political consciousness determines the quality of the development of student party members, and precise analysis and targeted control and improvement are needed. On the other hand, the foundation of the masses is the fundamental task of party member development and the fundamental purpose of serving the people. Moral character is a qualified standard for testing party members beyond the law, and is the criterion for constraining and regulating the behavior of party members themselves. Professional skills focus on the learning situation of students. As students are primarily responsible for learning, the assessment requires more basic and theoretical knowledge to be learned. Finally, practical ability serves as a supplement, and practice is the only criterion for testing truth. It is necessary to reserve the theoretical knowledge and professional skills of the Party, in order to guide practice and improve the ability and level of serving the people<sup>8</sup>.

## 5 Improvement and Control of the Quality of Student Party Member Development Based on Six Sigma Management Method

According to Figure 1, political consciousness is the most important factor affecting the quality of student party member development. In the work of developing party members, political standards must be given top priority. This is the fundamental guarantee to ensure the progressiveness and purity of the Party, as well as the quality of Party members, and is also the fundamental requirement for the recruitment of Party members<sup>9</sup>. Political standards refer to Party members maintaining a high degree of consistency with the Party Central Committee in their political stance, direction, principles, and path. Specifically, it means adhering to the Four Cardinal Principles, supporting the Party's line, principles, and policies, possessing a firm belief in communism and a

high level of political consciousness. Maintaining the progressiveness and purity of the Party, ensuring the quality of Party members and promoting the development of the Party's cause are important reasons for putting political standards in the first place. Based on the measurement results in the previous section, attention should be paid to the following aspects for improvement and control.

One is to strengthen ideological and political education: Party organizations should strengthen ideological and political education for applicants and party members, guide them to establish correct worldviews, life views, and values, and enhance their ideological and political qualities and moral qualities<sup>10</sup>. The second is to strictly follow the organizational procedures: in the process of developing party members, we must strictly follow the organizational procedures to ensure the standardization and scientificity of each link. In the process of identifying active party members and accepting probationary party members, relevant procedures must be strictly followed to ensure the legality and compliance of the procedures. The third is to strengthen the inspection and review: Party organizations should strengthen the inspection and review of applicants and probationary party members, focusing on their political attitude, ideological consciousness, and motivation to join the party. Personnel with obvious defects or non-compliance should not be accepted or returned for modification. The fourth is to strengthen education, training, and management supervision: Party organizations should strengthen the education, training, and management supervision of Party members, improve their political literacy and professional abilities. At the same time, it is necessary to establish and improve the internal system of the Party, strengthen disciplinary constraints and supervision of disciplinary and accountability work, and create a clean and upright political ecology.

In addition, moral character, professional skills, practical ability, and public foundation should also receive comprehensive attention, and targeted improvements can be made in areas where the evaluation of the student falls behind. Because moral character is an inherent manifestation of the political character and cultivation of party members; Professional skills are the external manifestation of the governance ability of the cadre team; Practical ability is an important criterion for testing young party members; The mass foundation is the foundation of serving the people and the foundation of the Party's various work. So, a qualified and excellent party member needs to comprehensively cultivate the above five aspects<sup>11</sup>.

## 6 Summary

This paper attempts to use the Six Sigma management method to evaluate and study the quality of student party member development. It analyzes the process from the aspects of quality definition, quality measurement, quality analysis, quality improvement and control of student party member development based on the Six Sigma management method. It launches from five aspects: political awareness, moral quality, professional skills, practical ability, and mass base. Combined with student evaluation examples, it qualitatively and quantitatively explores the important factors that affect the quality of

student party member development, so as to propose targeted countermeasures to ensure the quality level of student party member development, and ensure the progressiveness and purity of the party members.

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