



Construction and Analysis of Evaluation Model of College Students' Key Competence Information System

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Abstract

Employment of graduates has become a hot point and a major concern of the society, moreover, many graduates are difficult to find right jobs. There is a large gap between the quality of college talent education and the actual needs for talent of enterprises. Can the gap be accurately evaluated and analyzed through information and data processing tools? This article conducts information system model construction from the perspective of the key capacity and quality level of college students and its expected gap with the company, and conducts dimension and indicator design. The evaluation system with enterprise investigation, using SPSS software for evaluation and analysis, is showing that the evaluation method is effective. It can accurately reflect the accurate gap between the supply of talent training and the needs of talents, and can provide reference for college talent training and corporate talent recruitment.

keywords: *Key abilities and qualities of college students. Information system evaluation model. Evaluation analysis.*

1 INTRODUCTION

At present, there is a certain gap between the supply of talents in colleges and universities and the needs of enterprises. Many evaluation dimensions and indicators design require lack of targetedness, standards lack anchor, and statistical analysis of credibility and validity need to be improved. It's important to design a suitable dimension indicator during evaluation, fully combine the information system for investigation and information processing, and the compare application of long-term data. By conducting a large number of references on CNKI, we can find that the research in this area mainly has the following aspects: (1) Research on ability quality models, evaluation systems and indicators. For example, Yu Yang (2011) [6], Lijuan xin (2011) [3] and Yang Zhang (2014) [8] have conducted research in this field. (2) Research on the empirical of capacity and quality model. For example, Wenjuan, Chen (2010) [7], Zhen Zheng (2013) [9] and others have conducted research in this field. (3) Research on the Evaluation Method of University Student Capability. For example, Tianchi Zheng (2011) [5] conducted research in this area. (4) From an industry perspective, analyze and evaluate college students' ability quality. For example, Han Li (2014) [1] conducted relevant research in this regard. (5) Analyze and evaluate the ability of college students from

the perspective of the enterprise. For example, Junpeng Li (2015) [2] and Min Zhao (2015) [4] have conducted relevant research in this regard. After analysis, the researchers have diversified thinking about the dimension of ability quality and index design, and the evaluation of college students' ability quality is also based on this. the relevant research on the evaluation of the ability and quality of talents in colleges and universities is mostly judgment from the subjective perception of the investigators. The standards for measuring the level of the status quo are yet to be discussed. At the same time, the relevant evaluation empirical research has not been evaluated and analyzed separately from the status quo and expectations, and it is also lacking in continuous analysis and improvement through information technology platforms. This article re-design the evaluation dimension and indicators in combination with the requirements of the enterprise, and design the evaluation standards. At the same time, the minimum expectations of the enterprise also incorporated into the evaluation. Form the model indicators to enroll into the evaluation system platform, and implement evaluation and analysis. In the future, the continuous comparative analysis of this evaluation system will be conducive to the targetedness of college education and the continuous improvement of talent training.

2 COLLEGE STUDENTS' QUALITY AND KEY ABILITY EVALUATION MODEL DESIGN

The evaluation model of College Students' ability and quality is constructed as follows (Figure 1):

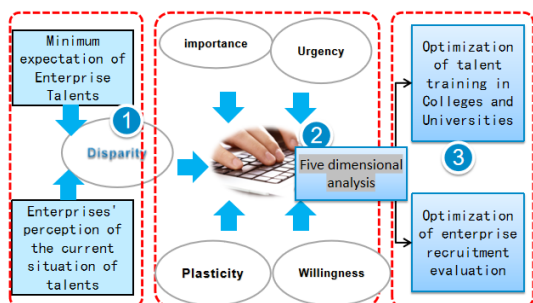


Figure 1: College Students' ability and quality evaluation model

In the implementation of the evaluation, the gap analysis is the most foundation. This article only conducts the analysis of the evaluation data from the perspective of the gap, and the importance, urgency, plasticity, and willingness are no longer analyzed. The research and evaluation objects are mainly human resources managers or functional departments in Chengdu and surrounding enterprises. They answered the links of the platform.

The dimension design follows the dimension division principles of "comprehensiveness and fit, importance and urgency, summary and conceptuality, level and complementarity, continuity and operability, humanism and accuracy", which is mainly divided into four dimensions: knowledge, skills, attitude and behavior.

According to the dimension, the key evaluation indicators are further designed in combination with relevant data on post competency. In order to facilitate the evaluation, some common similar ability indicators are analyzed and integrated, and the key indicators are finally determined through communication with enterprise personnel. Finally, 27 important key evaluation indicators are designed, which are respectively:

Knowledge dimension: basic language knowledge, basic computer operation knowledge, basic English knowledge and professional knowledge, of which the first three indicators are general knowledge.

Skill dimensions: learning and growth ability, self-management ability, adaptability and adaptability to the environment, problem analysis and problem-solving ability, data statistical analysis ability, concept abstraction and innovation ability, planning and execution ability, leadership and decision-making ability, subordinate training and authorization ability, team cooperation and communication ability, organization,

coordination, communication and expression ability, observation and supervision ability, ability to motivate and influence others Professional skills of this discipline. In addition to the professional skills, the other 13 indicators are general management skills.

Attitude dimension: hardworking, confident and positive, responsible and loyal, service payment, honesty and trustworthiness, cherish posts and devote wholeheartedly to work.

Behavior dimension: speech and behavior, mental outlook and proper dress.

The weights were knowledge 15%, skill 35%, attitude 35% and behavior 15%. In the knowledge dimension, the professional knowledge is 40%, and other general knowledge is 20%. In the skill dimension, the professional skills account for 22%, and other general skills account for 6% respectively. In the attitude dimension, each index is 16.67% In the behavioral dimension, each index is 33.33%.

The current situation evaluation is that enterprises score the current level of students' key abilities, and the minimum expectation is the lowest expectation of enterprises for students' entry key abilities, that is, enterprises that reach this minimum level are willing to accept it. The score is set to a level 10 integer, and the investigators are selected directly in the evaluation system. Each question is given a full score of 10 points. The current situation evaluation standard is based on whether it meets the needs of the enterprise's post. It is anchored at three levels. If it does not meet the needs of the post, it is 1 point, if it basically meets the needs of the post, it is 6 points, and if it fully meets the needs of the post, it is 10 points. Through the questionnaire survey system, 45 enterprises were investigated, and 36 enterprises answered the evaluation. SPSS was used for statistical analysis. The reliability of the evaluation results is analyzed, and the enterprise evaluation data $\alpha = 0.819$, internal consistency is very good.

3 QUESTIONNAIRE STATISTICAL ANALYSIS

3.1 overall index and overall analysis

The evaluation index of enterprises on the current situation of students = 6.005. The lowest expectation index of enterprises for students = 6.392.

The overall current situation evaluation index shows that the enterprise's evaluation index of students is basically in line with the basic needs of the post.

According to the scores of specific indicators, the basic compliance is due to the high evaluation of attitude indicators and behavior indicators, while the scores of most professional skill indicators are low, resulting in the weighted average index is basically in line with the needs

of the enterprise post, The enterprise's minimum expectation for students is only 0.39 higher than that basically meeting the needs of the post, indicating that the enterprise's minimum expectation for students has been low. According to the gap between the lowest expectation and the current situation evaluation, the current level of students can not meet the lowest expectation of enterprises, and the gap is about 0.39. Enterprises are not satisfied with the current talent training in Colleges.

3.2 index analysis of each dimension

3.2.1 analysis of knowledge dimension indicators

Through the weighted average calculation of knowledge dimension, the overall score index of enterprise on students' knowledge dimension is 5.60; The overall index of the lowest expectation of enterprises on students' knowledge dimension is 5.98; On the whole, enterprises believe that the knowledge level of students does not meet the basic needs of enterprises and their minimum expectations.

The current evaluation indexes of the four indicators of knowledge dimension: basic language knowledge, basic computer operation knowledge, basic English knowledge and professional knowledge are 6.16, 5.18, 4.59 and 5.88 respectively; The lowest expectations of the four indicators are 6.18, 6.25, 5.09 and 6.38 respectively. From the perspective of current situation evaluation, except for basic language knowledge, the scores of other indicators can not meet the basic needs of enterprise posts. From the perspective of minimum expectation, enterprises have very low expectations for students' English knowledge, which is different from the original intention of many colleges and universities to pay more attention to English teaching. It is worth thinking about. In addition to English knowledge, enterprises have low requirements for other indicators, which can basically meet the basic needs of the post.

Specifically as shown in the figure below:

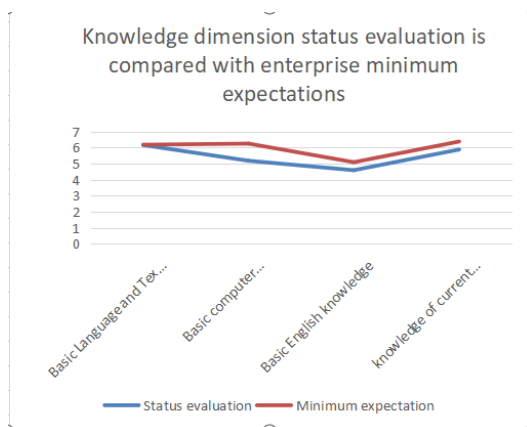


Figure 2: knowledge dimension status evaluation is compared with enterprise minimum expectations

From the perspective of the gap between the minimum expectation and the current situation evaluation, the difference between the enterprise minimum expectation and the current situation evaluation of the four indicators is 0.02, 1.07, 0.5 and 0.5 respectively. The gap between the enterprise's evaluation of students' knowledge and the enterprise minimum expectation is very large except for the basic language knowledge, especially for the basic operation knowledge of computers, the gap reaches 1.07.

3.2.2 analysis of skill dimension indicators

Through the weighted average calculation of skill dimension, the overall score index of enterprises for students' skills is 5.80, and the overall index of enterprises' minimum expectation for students' skills is 6.38. On the whole, enterprises believe that the overall level of students' skills can not meet the basic requirements of the post, and is far lower than the minimum expectation of enterprises, and the gap reaches 0.58.

The enterprise's ability to learn and grow, self-management, adapt to the environment and respond to changes, analyze and solve problems, statistical analysis of data, conceptual abstraction and innovation, planning and execution, leadership and decision-making, subordinate training and authorization, teamwork and communication, organization, coordination, communication and expression, observation and supervision, and the ability to motivate and influence others, Professional skills of this discipline. The current situation scoring indexes of these 14 indicators are 6.28, 5.78, 5.97, 6.13, 5.94, 5.53, 5.69, 5.38, 5.09, 6.09, 5.97, 5.75, 5.72 and 5.84 respectively; The lowest expectation index of enterprises for the 14 indicators of this dimension is 6.53, 6.63, 6.66, 6.41, 6.59, 6.23, 6.53, 6.31, 6, 6.03, 6.53, 6.44, 6.34 and 6.16 respectively. From the current situation evaluation score, we can see that the enterprise's evaluation of the 14 indicators, in addition to the three indicators of learning and growth ability, problem-solving ability, teamwork and communication ability, basically meet the basic needs of the post, the scores of the other 11 skill indicators can not meet the basic needs of the enterprise post. From the perspective of minimum expectation, the enterprise has slightly higher requirements for the minimum expectation of skill indicators, and the six index indexes are more than 0.5 higher than basically meeting the post requirements, indicating that the enterprise has higher requirements for skill indicators in the process of talent recruitment. Specifically as shown in the figure below:

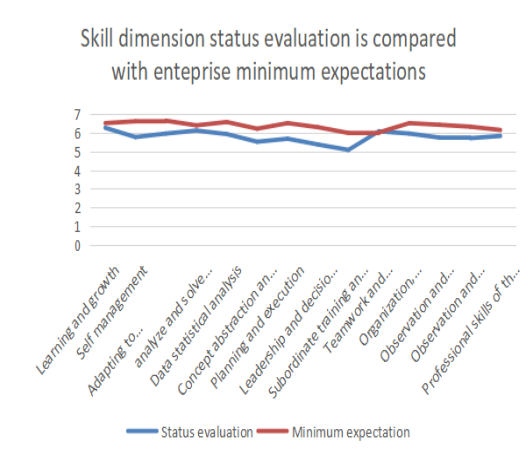


Figure 3: skill dimension status evaluation is compared with enterprise minimum expectations

From the perspective of the gap between the minimum expectation and the current situation evaluation, the difference between the minimum expectation and the current situation evaluation of these 14 indicators is 0.25, 0.85, 0.69, 0.28, 0.65, 0.7, 0.84, 0.93, 0.91, -0.06, 0.56, 0.69, 0.62 and 0.32 respectively. There is a large gap between the enterprise's evaluation of students' skills and the enterprise's minimum expectation. In addition to the fact that the current situation of teamwork and communication basically meets the enterprise's minimum expectation, The other 13 indicators can not meet the minimum expectations of the enterprise, especially the ability of self-management, adaptability to the environment and adaptability, data statistical analysis, concept abstraction and innovation, planning and execution, leadership and decision-making, subordinate training and authorization, organization, coordination, communication and expression, observation and supervision, and the ability to motivate and influence others. The gap between these 10 indicators is more than 0.5, At the same time, it also shows that enterprises are not satisfied with the school's education on students' skills. Even if the focus of higher education is "professional skills education", the gap between its current level and the lowest expectation of enterprises has reached 0.32, which is worthy of our reflection.

3.2.3 analysis of attitude dimension indicators

The weighted average calculation of the attitude dimension shows that the overall score index of the enterprise's attitude towards students is 6.17. and the overall index of the lowest expectation of the enterprise's attitude towards students is 6.57. From this, enterprises believe that the status of students' attitude dimension is beyond the basic needs of enterprise posts, but it is still lower than the minimum expectation of enterprises.

The current evaluation indexes of six indicators of enterprises' attitude dimension: hard-working, self-confidence and enthusiasm, responsibility and loyalty,

service, honesty and trustworthiness, and dedication are 5.97, 6.34, 5.91, 5.97, 6.56 and 6.31 respectively; The minimum expectation indexes of the six indicators are 6.22, 6.38, 6.56, 6.75, 6.91 and 6.63 respectively. From the perspective of current situation evaluation, the three indicators of graduates' self-confidence and enthusiasm, honesty and trustworthiness and dedication can meet the basic requirements of the post, while the three indicators of hard work, responsibility and loyalty and service can not meet the basic requirements of the enterprise post. From the perspective of the lowest expectation of the enterprise, the minimum expectation requirements of the enterprise for these six indicators are still high, and the four indicators are more than 0.5 higher than those basically meeting the needs of the post. See the following figure for details:

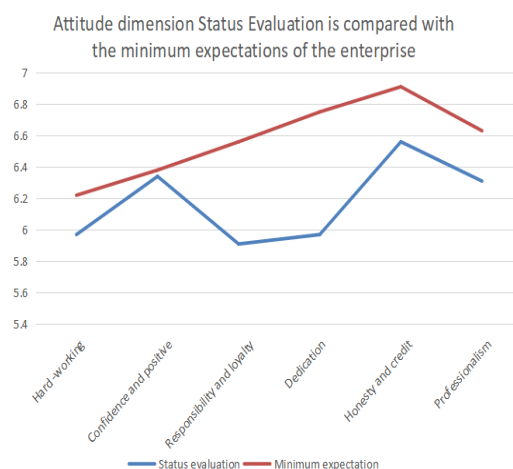


Figure 4: Attitude dimension status evaluation is compared with enterprise minimum expectations

From the gap between the lowest expectation and the current situation evaluation, the differences of these six indicators are 0.25, 0.04, 0.65, 0.78, 0.35 and 0.32 respectively. There is a big gap between the minimum expectation and the current situation of the two indicators of responsibility, loyalty and service payment, which is more than 0.5, which is worth pondering by college educators.

3.2.4 analysis of behavioral dimension indicators

The weighted average calculation of behavior dimension shows that the overall index score of enterprise on student behavior is 6.49 points. and the overall index of enterprise's minimum expectation for student behavior is 6.41. It can be seen that the overall score of the enterprise on the student behavior dimension is higher than the basic needs and minimum expectations of the enterprise post, but the gap is not large.

The enterprise's current rating index of speech, spirit and dress in the dimension of behavior is 6.5, 6.38 and 6.59 respectively; The minimum expectation indexes of

the three indicators are 6.41, 6.56 and 6.25 respectively. From the perspective of the current situation, these three indicators are higher than the basic requirements of the post. Specifically as shown in the figure below:

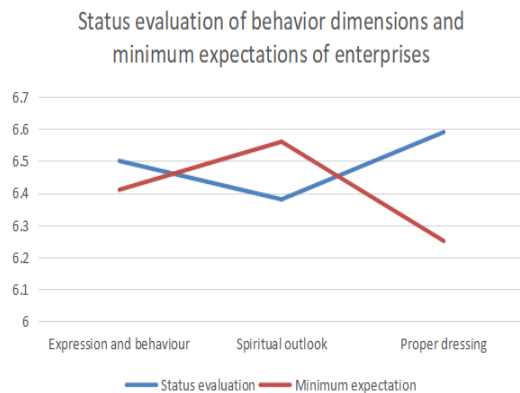


Figure 5: behavior dimension status evaluation is compared with enterprise minimum expectations

From the difference between the enterprise minimum expectation index and the current situation evaluation index, the differences of the three indicators are: -0.09, 0.18 and -0.34 respectively, which shows that the enterprise is basically satisfied with the behavior of students.

This data is an evaluation data, from which the specific gap can be seen. At the same time, SPSS software can also analyze some other aspects of these data, including establishing an evaluation matrix, but for colleges, understanding the gap is the most important. So matrix analysis is no longer performed. The training of students can be strengthened at the university level. Enterprises can strengthen post training. At the same time, colleges and universities can be evaluated at different periods. Through comparative analysis of this data at different time periods, it can be found that continuous changes can be found, and then analyze the talent training ability of college talents and the ability of colleges and universities Change of quality.

The combination of this model and indicators and information systems and analysis software can be applied in different scenarios, and can be used as an important tool for future college talent training.

4.CONCLUSION

4.1 There is a big gap between the skill level of applied students trained in Colleges and the basic requirements of enterprise posts and enterprise expectations, and the skill education for the cultivation of Applied Talents in Colleges and universities is not enough. We need to conduct accurate evaluation at different times and conduct long -term tracking analysis through the information system.

4.2 The degree of integration of application -oriented talent education and needs of enterprise needs to be improved. The gap between the index reflects the gap between the quality of education and the requirements of enterprise positions to a certain extent. Based on this, colleges and universities can establish a 3-5 years of target achievement monitoring and feedback system to improve the way of improvement of college talent training.

4.3 There is a large gap between the knowledge and skill level of graduates and the minimum expectation of the enterprise, especially the skill is the ability quality that the enterprise attaches importance to. The gap between the current situation and the minimum expectation is more obvious. Systematic evaluation helps to better understand the expectations of enterprises and feed back the talent training process.

4.4 Enterprises can apply this model dimension and indicators to design appropriate evaluation tools for talent recruitment and training.

4.5 At the same time, the information system evaluation can also be added to importance, urgency, will, and plasticity options. Evaluate the answer standards, and compare analysis with the gap. Then get more conclusions.

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