

Evaluation of Comprehensive Ability of English Major College Students and Matching for Enterprise Needs from the Perspective of Industrial Needs

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Abstract: In the post pandemic era, as the national economic environment changes and the employment situation warms up, optimizing resource allocation and improving educational efficiency in college student training and industrial demand is a problem faced by many application-oriented universities. ^[1] On the basis of studying a large amount of literature and conducting on-site research on English major students and employers, this paper constructs a comprehensive ability evaluation system for students, collects employment needs of enterprises, uses questionnaire survey method, and uses Kendall test to explore the relationship between above two. The results indicate that there is still a gap between students' abilities and the satisfaction of employers. Universities need to strengthen cooperation between industry, academia, and research, and deepen education reform. This article aims to construct a scientific, reasonable, and efficient ability evaluation system, and provide theoretical suggestions for talent cultivation for universities.

1. Introduction

With the advent of the post pandemic era and socio-economic changes, the matching of enterprise employment needs and student abilities is increasingly valued by application-oriented undergraduate universities. ^[2] At present, undergraduate teaching may overlook the cultivation of students' practical application abilities by employers. ^[3] The construction of campus culture is disconnected from corporate culture education. ^[4] The school textbooks for English majors focus on the accumulation and application of grammar and vocabulary, without adapting to the actual needs of employers. ^[5] Therefore, this study selects the English major as the research field, guided by the skill requirements of enterprises for practitioners, and constructs a comprehensive ability evaluation system model for students. This study is conducive to promoting the development of school enterprise cooperation and truly achieving "zero docking" between schools and enterprises. At the same time, in response to the requirements of employers for the English application ability of employees. The education provides training on relevant knowledge and practical English skills required by enterprises for students, so that they can adapt to the requirements of the enterprise

earlier and reserve talent for the enterprise. [6]

2. Research Design

2.1. Construction of Comprehensive ability evaluation model

According to former literature research, comprehensive abilities are divided into three categories: moral quality, professional ability, and professional literacy. A comprehensive ability evaluation framework is constructed and classified evaluations are conducted. This research group interviewed a total of 10 human resources department supervisors and senior professional and technical personnel from enterprises and institutions, and repeatedly demonstrated the framework content. Employability measurement ability is divided into three parts, including 12 personal qualities, 9 employability, and 4 professional abilities.

2.2. Organization and Implementation of Questionnaire Surveys

Based on the constructed framework for evaluating the comprehensive abilities of liberal arts college students, a "Comprehensive Ability Survey of Liberal Arts Students" student version and an employer version questionnaire are designed for English majors and enterprises. As mentioned earlier, the comprehensive abilities in this article are divided into three aspects: moral character, professional ability, and professional literacy. Considering that moral qualities involve privacy, in order to ensure the authenticity and validity of the survey results, only the personal qualities of graduates were evaluated from the perspective of the employer, and no self-evaluation was conducted for students. The final student questionnaire includes three main aspects: firstly, investigate the cognitive level of freshmen and seniors on various professional abilities and the importance of professional literacy; Secondly, from the perspective of senior graduates, investigate the degree to which universities attach importance to the cultivation of specific professional abilities and qualities, and compare it with the evaluation of employers to examine potential problems in the cultivation of college students. Senior graduates have gone through four years of study and life in university, and it is reasonable for them to evaluate the school's training of various employment abilities based on their personal experiences. The purpose of the employer questionnaire is to investigate the employer's demand and satisfaction with the moral character, professional ability, and literacy of humanities graduates within 5 years of graduation. The questionnaire went through two stages: pre testing and testing, meeting the requirements of the questionnaire survey. A total of 98 valid questionnaires were collected from freshmen, 92 from seniors, and 95 from employers in this survey. The survey subjects for college students come from different types of universities across the country. Male students account for 21% and female students account for 79%. The universities and gender distribution of the surveyed students have certain representativeness. The basic situation of the surveyed subjects in employers is that 70% and 30% of the employees in enterprises and public institutions respectively, which is in line with the actual situation of most English major students working in enterprises; 58% and 21% of respondents had worked for 5 years and over 3 years, respectively. The working years and professional qualifications of the survey subjects can largely represent the opinions of the employer. In order to minimize the bias in understanding among different interviewees, specific definitions of different occupational ability indicators were provided in the survey questionnaire. The sample data was statistically analyzed using SPSSAU. The reliability and stability of the questionnaire were evaluated using the Cronbach's a coefficient. The total Cronbach's a coefficients for the student and employer versions of the questionnaire were 0.817 and 0.803, respectively, both greater than 0.7; After evaluating the validity of the questionnaire, it was found that the content validity index S-CVI of the student

version and the employer version were 0.967 and 0.954, respectively, both greater than 0.9, indicating good content validity of the questionnaire.

3. Research Result

3.1. The Analysis of the Differences between University Training, Student Cognition, and Employer Needs

The analysis of the differences between university training, student cognition, and employer needs uses the frequency analysis function of SPSSAU to study the order of employer needs for 9 professional abilities and the recognition of the importance of each professional ability by senior and first year students. The results are shown in Table 1 and Table 2. Using the Kendall coordination coefficient for consistency testing, it was found that the overall Kendall coordination coefficient of the three evaluation subjects was 0.958, greater than 0.8, indicating strong consistency in the cognition of the importance of the nine professional abilities among different evaluation subjects. Further observation of Table 2 reveals that compared to freshmen, senior graduates' awareness of the importance of various professional abilities is more in line with the order of demand in enterprises and institutions. After four years of university study, students have gained a more objective understanding of social needs, which is in line with the development law of students' cognition. From Table 2, it can be seen that the vocational ability that employers attach the most importance to is professional and technical ability, which is a necessary condition for students to be competent in future work. This is completely different from the conclusions obtained from previous evaluations of college students' employability without distinguishing their majors. The importance of problem-solving ability is second only to professional technical ability. The earlier students realize this, the more it helps them to value the combination of theoretical learning and practical application, actively participate in various teaching and social practice activities, and thus improve their employment competitiveness. For educators, how to improve students' ability to solve practical problems through curriculum construction is worthy of attention and research.

Table 1: Company Demand and students' cognition of Professional competence.

Professional competence.	Demand by Company	Senior Graduates cognition	freshmen cognition
Executive power	1	1	1
Proactive work	2	3	3
Working Independence	3	4	4
Adaptability	4	2	2

Table 2: Company Demand and students' cognition of career ability.

Career ability	Demand by Company	Senior Graduates cognition	freshmen cognition
Professional Ability	2	2	2
Problem solving	3	3	5
learning	3	3	2
analyzing	3	3	2
communication	4	5	6
creativity	5	4	4
expression	6	7	7
technology	7	6	5
Managment	8	8	8

3.2. Analysis of the Gap between College Training and Employers' Satisfaction

Conduct surveys on the satisfaction and importance of university training among employers and senior graduates regarding various professional abilities. The satisfaction data of employers shows the sum of the proportion of respondents in enterprises and institutions who are satisfied and very satisfied with various abilities and qualities of engineering graduates. The data on the importance attached to university training is the sum of the proportions of senior graduates who believe that universities attach special importance to the cultivation of various abilities and qualities.

From Figure 2, it can be seen that employers have the lowest satisfaction with the management ability of engineering graduates. For college students who have graduated within 5 years, employers pay more attention to their self-management abilities. The main reason for low satisfaction is the time management and stress management abilities demonstrated by engineering graduates in their work, as well as insufficient self-control. A survey was conducted on the importance and satisfaction of university training among senior graduates and employers for various professional qualities, as shown in Figure 3. It can be seen that universities place a moderate level of emphasis on various professional qualities; The satisfaction of employers with various professional qualities is at a medium to low level. Employers' satisfaction with the three most needed professional qualities: execution, proactive work, and independent work ranges from 65% to 76%; The degree of emphasis on university training ranges from 74% to 77%. The satisfaction level below 70% is related to adaptability, proactive work, and psychological literacy, which are 16.4%, 15.6%, and 24.3% lower than the emphasis on training in universities. It indicates that universities should pay more attention to the cultivation of these professional qualities.

4. Conclusions and Suggestions

The research to some extent reflects the differences between the current needs of higher education and enterprises in China. Firstly, in terms of personal qualities, employers believe that university graduates lack a sense of overall situation and a spirit of hard work; Secondly, in terms of professional abilities and qualities, there is still a significant gap between the cultivation results of students' ability to discover and analyze problems, solve practical problems, work initiative, psychological quality, and adaptability in universities and the needs of employers; Finally, college students can have a clearer understanding of their lack of professional abilities. Based on the above research results, this article proposes countermeasures and suggestions to bridge the supply and demand gap between employers and engineering education and training.

Collaborative education between schools and enterprises is oriented towards industrial demand, and cultivating students' employability is the core measure to improve employment rates. However, schools lack understanding of industrial demand, and enterprises are located on the front line of industrial development. They can play a greater role in talent cultivation in universities, forming a collaborative employment ability cultivation and improvement system among schools, students, and enterprises. Firstly, universities and enterprises should achieve "information sharing". Universities can obtain the latest national policy guidance, industry development, industry demand, and talent demand information through enterprises, thereby more accurately positioning talent training goals, reforming talent training models, and improving curriculum settings; Universities are at the forefront of scientific development, and through theoretical guidance and collaborative research and development, they can help enterprises improve their technological development and innovation capabilities, while also cultivating technical backbone for enterprises. Secondly, invite industry experts and management personnel to participate in the discussion and revision of talent cultivation plans, helping to identify problems in talent cultivation, clarify disciplinary and professional construction ideas, and optimize talent cultivation plans. Finally, enterprise technical and

management personnel have more insightful insights in technology application, product development, project management, and other aspects, and enterprises can also provide more convenient on-site teaching conditions. Therefore, it is necessary to carry out "dual teacher" (university teachers enterprise mentors) teaching, allowing experienced personnel from enterprises to participate in practical teaching, which has a positive effect on improving students' ability to solve complex problems and comprehensive literacy. In the process of carrying out the "dual teacher" teaching activity, university teachers can fully leverage their advantages in theoretical teaching and scientific research, responsible for teaching activities such as professional knowledge and basic practical skills, as well as expanding professional cutting-edge knowledge; Enterprise experts can make up for the shortcomings of practical teaching by university teachers, utilizing rich practical experience and real cases to conduct teaching. Through a series of processes such as problem analysis, scheme comparison and design, and result demonstration, students' ability to solve practical problems, work initiative, and execution ability can be comprehensively evaluated and enhanced. Combining university teachers with enterprise experts to enhance students' employability through multiple channels and in all aspects. Research has shown that college students' understanding of employability should not be limited to hard power such as professional skills, learning ability, and innovation ability, but should be comprehensively understood based on personal qualities and professional qualities. The earlier and more comprehensive students understand their employability, the better they grasp the needs of employers, the better they can plan their career as soon as possible, prepare for job hunting, and achieve a smooth connection between graduation and employment. For higher education, the cultivation of students' professional abilities and qualities is not limited to career planning and guidance, but should also be fully integrated into employability education in various courses and teaching activities such as professional courses; In addition, strengthening the collaborative education of obstetric education and deepening the cooperation between schools and enterprises are also effective means to promote the employment of college students.

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