

# An Empirical Research on the Acceptance of the Talent-education Quality Elements in Higher Education Institutions

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## Abstract

The quality of talent education in higher education institutions includes nine major elements, namely, the students' ideological and moral standards, specialized theoretical attainment, practice ability, social competence, independent learning ability, logical thinking ability, innovation ability, team-work spirit, and graduates' career development level. This research on different university crowds shows that all the university crowds agree that specialized theoretical attainment, logical thinking ability and innovation ability are the core elements; but there exists striking difference among different crowds in higher education institutions on the acceptance of the talent-education quality elements, whereas people beyond colleges and universities hold that practice ability, innovation ability and career development level are more important.

**Keywords:** the quality of talent education in higher education institutions; quality elements; acceptance; empirical research

## 1. Introduction

University talent training quality is a system which is composed of all kinds of elements related with quality. It includes the students' knowledge, ability, quality

and career development level etc. We can form the overall judgment on the university talent training quality by analyzing the quality elements.

The elements of university talent training quality change with historical development and different historical periods. And the elements' values are different. In these elements, the understanding emphasis of different people is not same. The emphasis reflects the different people's value selections and preferences what are related with different people's position and the standards of university talent training quality. This paper try to understand different people's attitudes towards quality components and further defined the improving direction of university talent training work by analyzing the elements identification degrees.

The elements survey of university talent training quality in this paper is designed according to the Stakeholder Theory. There is a close relation between university talent training quality and different stakeholders. In this system, the main stakeholders are management staff, teachers, students and employing units. the main stakeholders' assessment of the elements identification degrees of university talent training quality is the clearest and most accurate. Therefore, in order to understand the different stakeholders' elements identification degrees of universi-

ty talent training quality, this research especially designed questionnaires for management staff, teachers, students and social personages.

## **2. Data and Investigation Method**

### **2.1 Investigation Tool**

We make an interview with 40 experts about some core problems in higher education quality. After analyzing the interview contents, sum up the nine elements of university talent training quality. Design the problems of elements identification degrees according to the nine elements, and carry on the investigation of different stakeholders including management staff, teachers, students and social personages.

The problems design of the questionnaire survey is used the 5 Likert Scale method. The respondents evaluate the elements identification degrees by answering questions. 1 means the minimum, 3 means general, 5 means the maximum.

### **2.2 Objects of Investigation**

The objects of this investigation are the four groups of higher education system, including the crowd within and outside the universities system. The crowd within the universities system includes the management staff at different levels, teachers at different levels, students of different academic qualifications. They are the direct stakeholders, having the direct say in the elements identification degrees of university talent training quality. The crowd outside the higher education system are social personages. They are the social evaluating subjective, directly reflecting the trust levels of university talent training quality. The social personages of this investigation include the business executives and senior managers of the government department concerned

and other industries. The cause to choose these personages is the representation.

### **2.3 Sample Method**

We take the stratified random sampling method in the investigation of different crowds, considering fully the representation of different crowds in different universities and different areas.

At first, carve up the Chinese mainland universities to seven areas, that is Northeast university, North China university, Central China university, South China university, Eastern China university, Northwest university, and Southwest university.

Secondly, divide the universities into four types according to the hierarchy, that is 985 Engineering university, 211 undergraduate Engineering university, regular institution, higher vocational and technical colleges.

At last, respectively elicit a certain number of managers, teachers and teachers from different universities as samples to launch the investigation.

Random sampling is used to investigate the social personages. Select specifically some enterprises and government bodies. The convenience and representation of different provinces and different industries is considered fully. 300 departments are elicited by random sample, five people are investigated in each sample department.

### **2.4 Distribution and Callback of Questionnaires**

#### **2.4.1 Distribution and callback of questionnaires within the universities**

A total of 3630 questionnaires are distributed to the managers of 121 universities, and 2970 are returned (the return rate is 82%), of which 2442 are valid (the valid rate is 82%). A total of 6050 questionnaires are distributed to the teachers of

the samples universities, and 4950 are returned (the return rate is 82%), of which 3777 are valid (the valid rate is 76%). A total of 12100 questionnaires are distributed to the students of the samples universities, and 9900 are returned (the return rate is 82%), of which 8811 are valid (the valid rate is 89%).

#### **2.4.2 Distribution and callback of social personages' questionnaires**

A total of 1500 questionnaires are distributed to 300 departments in 28 provinces, municipalities or autonomous regions, and 1210 valid questionnaires are returned from 242 departments (the return rate is 80%)

#### **2.5 Reliability and Validity Test of the Questionnaire**

Reliability of the four types questionnaires is analyzed by adopting the binary reliability analysis method, and the result is: the Cronbach alpha coefficient value is greater than 0.9, and the final Guttman Split - Half coefficient value is above 0.8, the Guttman Split - Half coefficient value of teachers' questionnaires is more than 0.9. the reliability of four types questionnaire is quite high.

Validity of the four types questionnaires is tested by adopting the construction validity method. The KMO are 0.946、0.977、0.982、0.987, the Sig. value of Bartlett sphere inspection is 0.000, that means the investigation questions are suitable for element analysis. The construct validity of four types questionnaires is satisfactory. The data has higher explanatory power and effectiveness.

### **3. Analysis and Conclusion**

#### **3.1 Teachers and students hold that specialized theoretical attainment, logical thinking ability, innovation ability are the core elements of talent-education quality.**

The research divides the elements of university talent training quality into nine parameters, those are the students' ideological and moral level, specialized theoretical attainment, practice manipulative ability, social adaptation, independent learning ability, logical thinking ability, innovation ability, team-work spirit, graduate career development level. The elements identification degrees of university talent training quality is reflected according to the nine parameters. The questionnaires show: the nine parameters identification degrees of the students, teachers and managers are between 3.23 to 3.64. After variance analysis, it is found that the distinction of different assessment subjects is significant except specialized theoretical attainment, logical thinking ability and innovation ability. That means the identification degrees of the students, teachers and managers are consistent in assessing the specialized theoretical attainment, logical thinking ability and innovation ability, the assessment results are around 3.4.

After doing a multiple inspection analysis on above statistically significant elements, it is found the following characteristics: 1) The assessment results of teachers and managers are better than students in assessing the students' ideological and moral level, there is no significant difference between teachers and managers. Students' assessment result is significantly low. That suggests teachers and managers don't know enough about the truth of the students' ideological and moral level. 2) The assessment results of students is significantly less than teachers and managers in assessing practice manipulative ability

and social adaptation, there is no significant difference between teachers and managers. That suggests teachers and managers overestimate the students' abilities in the two aspects, and students have higher requirements in the two aspects. 3) The assessment results of students is higher than teachers in assessing independent learning ability and team-work spirit, the difference is significant. The assessment results of other crowds is consistent. That suggests teachers underestimate the students' abilities in the two aspects. 4) The assessment result of managers is higher than students in assessing graduate career development level, the difference is significant. The assessment results of other crowds is consistent. That suggests the students' employment prospects and job satisfaction are lower than the managers'.

### **3.2 The acceptance of different university crowds is significant different .**

We can know the difference in assessing talent training elements among the managers, students and teachers who are from different universities by analyzing the assessment results of different universities. The analytic result of the questionnaires shows: the average of identification degrees of the teachers and students who are from 985 Engineering universities is between 3.55 to 3.65, that from 211 Engineering universities is between 3.32 to 3.48, that from the higher vocational and technical colleges is between 3.24 to 3.49, and that from the regular undergraduate institutions is between 3.18 to 3.39. The conclusion is: the identification degree of the teachers and students who are from 985 Engineering universities is the highest, the second is 211 Engineering universities, the third is the higher vocational and technical colleges. The identification degree of the regular undergraduate institutions is the lowest.. The results of 985 Engineering universities, 211 Engineer-

ing universities, the higher vocational and technical colleges are positively correlated with their levels. Through the analysis of variance, the assessment difference of nine parameters is significant.

### **3.3 Social persons hold that practice manipulative ability, innovation ability and graduate career development level are the core elements of talent-education quality.**

The element identification degrees of social personages are observed mainly according the quality element structure of the graduates. There are the following Characteristics according to the survey data by investigating different professional groups in society:

Firstly, the overall elements identification degree of university talent training quality from different professional groups in society is in a middle level, the average is between 2.78 to 3.69.

Secondly, the identification degrees of specialized theoretical attainment and students' ideological and moral level are higher than others in social different occupational groups, the identification degrees are all above 3.25. The identification degrees of practice manipulative ability, innovation ability and graduate career development level are the lowest than others. The low social recognition in the practice manipulative ability, innovation ability and graduate career development level reflects the deficiency of university talent training quality elements, and they are needed enhanced in the talent training.

Thirdly, the difference of the elements identification degrees of the nine parameters in social different occupational groups is significant. The highest is the government agency managers, the second is the enterprise managers, the third is the enterprise developers, the lowest is the independent research institutions. Through the variance analysis, the differ-

ence among the groups is significant. Because the employees' innovation ability in independent research institutions is highly demanded, the people' view of independent research institutions confirms the students' innovation ability should be strengthened in China.

So, the satisfaction degree of the social personages is not high, the overall quality of students needs to be improved, especially the practice manipulative ability and innovation ability.

## **4. Discussion and Suggestions**

### **4.1 Keep the tension between universities and society**

From the investigation results, we can find that specialized theoretical attainment, logical thinking ability, innovation ability are quality elements of common concerns within the universities, while practice manipulative ability, innovation ability and graduate career development level are the core elements of social concerns. There is a cognitive difference about the elements structure of university talent training quality between the universities and society. The difference reflects the different goal and request of talent cultivation between the universities and society. The specialized theoretical attainment and abilities are like related to each other. So despite the diversity, it only reflects the different position of the investigators, and doesn't indicate a clear different standard of university talent training quality between the universities and society. We can know the different quality goals between the universities and society from their different element identification degrees of university talent training quality. The difference also indicates there is indeed a certain distance between the universities and society, while the difference is decided by the inherent characteristic existed in the univer-

sities and society what are two different organizations.

Keeping a certain tension between universities and society can help to improving the quality of university talent training. We emphasize universities should satisfy and promote the development of social economy, but not require the universities blindly follow to the society. So, university talent training should be based on students development and the patterns of talent training.

### **4.2 Strengthen the specialized theoretical attainment training and all-round capabilities training**

Before the enrollment expansion of higher education, undergraduates have excellent theoretical basis in China, and the graduate receives the employer the consistent high praise and the social widespread praise from all walks of life. The basic experience is paying high attention to the training of specialized theory. The teachers dedicate a good amount of time and skills to prepare teaching materials, suspect-replying and paper work.. Strict examination is implemented in the universities. After the enrollment expansion of higher education, affected by several elements, the freshman and sophomores spend a lot of time to learn foreign language and computer courses, the seniors are busy looking for jobs, the time for professional knowledge is gravely insufficient. That leads to the basis of students' professional knowledge is not solid, and their professional knowledge are unable to adapt to the needs of the development of social economy.

All-round capabilities include the abilities for each student's own development and social needs. practice manipulative ability and innovation ability are the score of all-round capabilities. practice manipulative ability as the main elements of talent training quality has been the consensus of the social from all walks of life. There are

two contradictions in the practice manipulative ability training: One is that the practical training is difficult to be carried out for lack of the training place and qualified teachers. The reasons are related with the diversity of professional discipline and big training investment. The second is that the social institutions are difficult to provide the training places for undergraduates. These causes lead to the students' practice manipulative abilities are criticized by the society.

To gain higher all-round capabilities is the objective requirements of the time development, especially the practice manipulative ability and innovation ability are the most important in the university talent training. It is a very important and urgent task to enhance the students' practice manipulative ability and innovation ability under the targeted training, to train the students' consciousness of problems, principles and methodologies.

#### **4.3 Intensify the quality characteristics of different layer-type institutes**

For a country's higher education system, there should be a reasonable "pyramid structure", and it is the demands of the development of mass higher education, also the demands of Chinese socialism market economy. Yet the common problems of positioning in higher institutes are blindly chasing high, huge and multiple targets. Many professional and local institutes are run according to the comprehensive or research universities, they pursue huge education scale and high education level. That leads the layers are not very clear and the localizations are not clear in many institutes. Convergence of talent training mode and hypsotaxis of education level lead to the weakening of originally school-running characteristics in many institutes.

In the process of constructing powerful higher education, we should intensify the emphasis of the talent training quality el-

ements of different layer-type institutes, and enhance the quality characteristics of different layer-type institutes with the social and economy development. Every institute will have its own localization, all the institutes will develop according their due layers and types.

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