

# Research on College Students' Career Orientation Paths Based on Psychological Quality

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**Abstract.** The occupational orientation test for Holland was administered to 274 college students. According to the study's findings, the Holland Career Aptitude Test, which gauges psychological traits, identifies distinct types and degrees of career preferences among college students. College students should receive employment advice based on their career kinds, and it should also be done to match their career tendencies with job openings. Students with unusually low career aptitude ratings should be retrained or used as needed.

**Keywords:** Psychological quality; Career orientation; Employment of college graduates.

## 1. Introduction

The report of the 20th National Congress of the Communist Party of China regards employment as the most basic issue of people's livelihood, but due to the impact of the epidemic, the world economy continues to be sluggish. Most national companies consistently reduce the number of jobs and the number of employees to ensure their survival. The employment work of graduates has attracted a lot of attention on the part of the Party and the country. Research on the careers of college students focuses primarily on three areas: employment, the social economy and higher education. Regarding the employment of college students, by analyzing the labour market factors of college students, researchers believe that attention should be paid to their employment[1]. At the same time, researchers suggested that college grads can improve their professional skills by participating in social activities[2]. In terms of social and economic aspects, during the epidemic period, a large number of international accounting and finance graduates had low employment rates and were treated unfairly during employment[3]. Some researchers have suggested ways to strengthen employment equity in terms of class differences[4]. In terms of higher education, many countries have adopted a combination of enrollment types and vocational programs to promote the employment of college students, and proposed strategies to improve degrees to enhance the employment advantages of college students, emphasizing the need to enhance professional abilities and qualities, and improve the career prospects of college students[5]. Above research results show that the employment of college students mainly depends on the employers' demand for their abilities and qualities, which has important reference value for the employment research of college students.

## 2. Analysis of evaluation tool selection

### 2.1 Evaluation tool's selection

In order to analyse the occupational tendencies based on the psychological qualities of graduates' employment, the Career Orientation Assessment method of assessing occupational tendencies was chosen because it meets the needs of graduates' occupational tendencies mentioned. The Holland Career Orientation Assessment method assesses the subject's career interests and abilities[6][7]. Career interests focus on the subject's personality and psychological qualities, while career abilities focus on the subject's operational, managerial, research, negotiation, creative and expressive abilities. The Howard evaluation method consolidates industries with similar occupational psychological qualities, and finally divides various professions into six major

occupational tendency types: enterprise type, social type, research type, conventional type, artistic type, and practical type. These six occupational tendency types cover almost all occupations in society.

### 2.2 Evaluation tool’s character

Of the six types of occupations mentioned above, practical-minded individuals are suited to occupations such as animal and plant management, mechanical management, mechanical repair, operation and handicrafts. Research oriented individuals are suitable for careers in mathematics, physics, chemistry, biology and design; artistic oriented individuals are suitable for careers in art, sculpture, dance, drama, painting and writing; social oriented individuals are suitable for careers in education, health and social work; business oriented individuals are suitable for careers in marketing, insurance and business administration; conventional oriented individuals are suitable for careers in banking, accountancy, cashiers, statisticians and computer operators.

## 3. Analysis of Research Objects

### 3.1 Basic situation analysis

In order to study the different occupational tendencies exhibited by college students due to differences in occupational psychological qualities, the Holland Career Assessment method was used to evaluate the occupational tendencies of 274 graduating college students. The results are shown in the following table.

Table 1 Survey of the number and percentage of college students' occupational tendencies

Occupational tendency	Conventional	Realistic	Research	Social	Artistic	Enterprise	Total
Students’ number	14	18	24	36	70	112	274
Percentage ratio	5.11%	6.57%	8.76%	13.14 %	25.55%	40.87%	100%

The above table shows that the number and proportion of students with six occupational tendencies are conventional, realistic, research-oriented, social, artistic, and entrepreneurial in descending order. The proportion of students with different occupational tendencies varies greatly, with the number of entrepreneurial students accounting for more than 40% of the total number of students tested, accounting for a large proportion in the number of students evaluated. The number of artistic students is significantly higher than the remaining other types of students. The number of students in both the entrepreneurial and artistic categories accounts for three-quarters of the total, while the other four types of occupational tendencies only account for the remaining quarter. The above analysis indicates that there are differences in the number of college students with different occupational tendencies. Analyzing this difference can roughly determine the main and non main types of employed college students.

### 3.2 Quantitative analysis of occupational tendencies

Quantitative analysis of career orientation can help understand the degree of suitability of college students' career orientation. Enterprises or employers can choose and enroll college students based on their matching degree, or allocate college students with the same career orientation type from high to low in a way that corresponds to the level of their job position. The following table shows the quantitative analysis results of the occupational tendencies of the tested college students.

Table2. Quantitative analysis table of students' career tendencies

Occupational tendency	Artistic	Enterprise	Social	Realistic	Research	Conventional	Average value
Maximum value	89	88	82	77	72	68	79.33
Minimum value	40	6	38	37	40	40	33.50

Average value	60.37	60.43	56.11	49.74	51.17	51.79	54.94
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The table above lists the maximum, minimum, and average values of the six occupational types' propensity indices, and ranks them in the order of maximum and low values. It is obvious that among the maximum values, the artistic type is the highest and the conventional type is the lowest. Through comparison, it was found that the enterprise type has the highest tendency level, which is 60.43, while the reality type has the lowest tendency level, which is 49.74. Calculate the arithmetic mean value of the six occupational types, which is 54.94, representing the overall occupational tendency level of all tested college students. Calculate the arithmetic mean of the maximum value for each type, which is 79.33, and the arithmetic mean of the minimum value for each type, which is 33.50. The threshold range for the two extreme values is 45.83, which represents the overall average level of change and can measure the convergence dispersion of various occupational types.

### 3.3 Grade analysis of occupational tendency distribution

Holland Career Assessment method was used to evaluate the career tendencies of 274 graduating university students. As shown in the figure below, we sort according to the maximum degree of occupational tendency and create a box plot of the distribution of occupational tendency scores. It can be seen that both the company type and the realistic type have small points that represent outliers. Ignoring the outliers, the distribution of tendency scores for each type of occupation is represented by the top line representing the highest value and the bottom line representing the lowest value. The middle rectangle and the black line in the rectangle indicate that the upper side length of the rectangle is the upper quartile line, the lower side length is the lower quartile line, and the black line in the rectangle is the median line. Therefore, the box plot arranges the score data of each occupational type in descending order and divides the group of data into four equal parts.

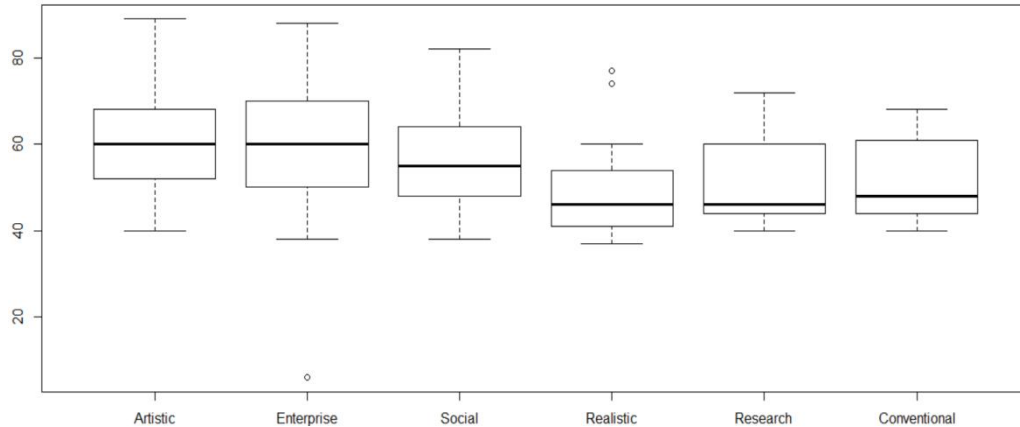


Fig. 1 Box Plot Distribution of Career Type Tendency among College Students

Here, the ability and occupation of the tested college students can be matched according to the principle of energy level correspondence; firstly, the occupational positions in each occupational type are divided into four levels based on their ability level requirements; secondly, it is necessary to configure the quartile range of the types of career tendencies and their levels of career tendencies of college students for observation; finally, the matching can be completed by selecting the corresponding occupational level according to the type of occupation and the range of career tendencies of college students.

In addition, for students with very low outliers, it is necessary to strengthen the skill training of their occupational types and improve the level of occupational orientation; for students with extremely high outliers, their occupational ability is excellent and they should be reused as key talents.

#### 4. Summary

Based on the analysis of the differences in occupational tendencies, employment counselling services can be provided to students and appropriate employment positions can be allocated. This not only provides various professional and composite talents who are proficient in modern science and technology and have innovative thinking for the high-quality development of China's socialist modernization, but also helps to fully mobilize the enthusiasm, initiative and creativity of employed students and enhance their work enthusiasm. Therefore, exploring different types of talents through career orientation assessment is an effective way to achieve high quality development. The use of this psychological assessment technology can not only be used to improve the degree of matching of college students' career types, but can also be applied to other hard-to-employ groups, which is of great significance for the overall improvement of the quality of employment work.

In the context of the digital economy, the market environment has changed drastically, and the structural employment contradictions caused by industrial transformation and upgrading have led to a continuous increase in the demand for knowledge-based and composite talents by employers. However, the current higher education system does not fully meet the needs of the labour market, which is mainly reflected in the lack of practical work experience among graduates. Neglecting vocational skills training based on career orientation will further exacerbate the mismatch between students and career types. By using the results of the vocational orientation assessment, it is crucial to provide graduates with skills and quality training that matches their vocational orientation, fills the gaps in vocational skills, exploits the advantages of vocational orientation, and improves the degree of career matching. At the same time, the content of vocational education and training is constantly updated in order to turn students into knowledge workers and versatile talents. This is crucial for resolving structural employment conflicts and achieving high-quality employment development for students.

To improve the economy, the country is currently advocating a new form of employment that focuses on innovation and entrepreneurship. However, only those with a good entrepreneurial spirit, modern management skills, strong interpersonal skills and a willingness to innovate can be better qualified for innovation and entrepreneurship work. Carry out career orientation assessment of working students, select high-quality talents with high leadership ability, strong social skills and excellent management skills, and let them form teams to engage in innovation and entrepreneurship activities. Only in this way can we effectively improve the effectiveness of innovation and entrepreneurship and implement national innovation and entrepreneurship policies. Therefore, career evaluation not only plays a role in selecting talents with special skills, but also standardizes career standards for innovation and entrepreneurship from the perspective of career matching. This not only reduces the risks faced by students engaged in innovation and entrepreneurship, but also promotes the high-quality development of innovation and entrepreneurship engineering.

Graduates flocking to large cities for employment are an important reason for the oversupply of urban labour, difficulties in finding employment and low student satisfaction. This not only hinders the flow of talent between urban and rural areas, but also makes it difficult for impoverished rural areas to achieve sustainable and quality development. By selecting high-quality college students who are suitable for the work of "Agriculture, Rural Areas and Farmers" through career orientation results, actively guiding them to devote themselves to the work of "Agriculture, Rural Areas and Farmers", using their acquired scientific and technological knowledge to serve rural areas, agriculture and farmers, transforming traditional and inefficient agriculture into high-quality, modern, green, low-carbon and environment-friendly industries, revitalizing the rural economy. This not only effectively solves the problem of "agriculture, rural areas and farmers", it is conducive to the task of poverty alleviation, and also coordinates the urban-rural employment system, optimizing the allocation of urban-rural labour resources.

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