# A Study on the Development of Ideological Dynamics and Behavioral Characteristics of Vocational College Students

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**Abstract.** This research uses methods such as interview and literature research to construct 14 indicators for the ideological development and behavior characteristics of vocational college students. A questionnaire survey was conducted on 298 vocational college students from different provinces and cities and perform correlation analysis on 4172 data obtained from the survey using SPSS.20.This research establishes a 14 indicators system for the development of ideological dynamics and behavioral characteristics of vocational college students, and conducts regression analysis on the ideological and behavioral indicators. The results show that there is a positive correlation between the thoughts and behaviors of vocational college students constructed in this study.

**Keywords:** vocational college students   ideological trends   behavior characteristics SPSS.20

## 1 Introduction

According to data released by the Ministry of Education, the number of students enrolled in higher vocational colleges in China reached 237 million in 2022, while the enrollment in higher vocational colleges reached 4.83 million in 2023, accounting for half of the total enrollment of college students. People born after 2000 (hereinafter referred to as "00s") have become the main force. With a good growth environment, developed mobile networks, and superior social conditions, the "post-00s" who grew up in such an environment have their own characteristics. They are called aborigines in the Internet era. They can use the Internet skillfully and have a keen understanding of network information, which brings about the characteristics of active thinking.

This group is gradually moving towards the core positions of socialist construction. They are the new and core forces of the motherland and socialist construction, and their ideological and behavioral characteristics and ideological dynamics are related to the future development of ideological education in major universities.

Therefore, this article uses methods such as psychology and quantitative analysis to investigate the ideological characteristics and behavioral development of contemporary vocational college students through cluster sampling. Using SPSS. 20 to conduct relevant analysis on the research data, establish a correlation analysis between the ideological and

behavioral development dynamics of vocational college students, in order to better promote the harmonious development of the ideological and behavioral dynamics of vocational college students.

## 2 Review research

Social existence determines social consciousness, which is the fundamental principle of Marxist materialism. "People's concepts, viewpoints, and concepts, in a word, their consciousness, change with changes in their living conditions, social relationships, and social existence[1].Different growth environments lead to intergenerational differences in ideological concepts among college students in different eras.

Xie Wenwu [2] studied the correlation between consumer behavior and academic performance among college students; Ren Lin[3] used data mining techniques to analyze the relationship between student consumption and learning behavior; Huang Xiaoli [4] analyzed abnormal behavior among students and issued warnings through records of access control, attendance, and consumption.

Qiu Qin and Guan Wenwen [5] believe that the Internet is changing everyone's lifestyle, and the emergence and promotion of We Media have exacerbated this trend. This trend has made the thinking and behavior of college students more networked and personalized, with more diverse value orientations and more clustered interpersonal relationships.

The aforementioned literature research indicates a strong and direct relationship between college student behavior and behavior. On the basis of previous research, this research used interview and questionnaire methods to obtain relevant data, and used SPSS. 20 to study the ideological dynamics and behavioral development of vocational college students, in order to make up for the shortcomings of previous research and promote the harmonious development of vocational college students' thinking and behavior.

## 3 Construction of Ideological Dynamics and Behavioral Development Indicators for Vocational College Students

Based on literature research, the theoretical foundation of the survey design is Marxist worldview, outlook on life, and values.

### 3.1 Construction of indicator system

This research used literature research and expert interview methods to construct dynamic indicators of thinking and behavioral development for vocational college students.

Firstly, literature research. This research reviewed 30 domestic and foreign literature on the ideological dynamics and behavioral development of vocational college students, and summarized the latest research results and main viewpoints.

Secondly, expert interviews. This research interviewed 10 vocational college graduates, 20 vocational college students, 8 vocational college counselors, and 5 vocational college deans.

Thirdly, code and statistically analyze the interview content. Ultimately, a development indicator system for the ideological dynamics and behavioral characteristics of vocational college students was formed.

**Table 1** Dynamic Indicator System for Ideological Development of Vocational College Students

| Primary indicators | Secondary indicators | Indicator application performance |
|---|---|---|
| Ideological awareness of vocational college students | politics | Whether actively supporting and striving to join the party group |
| | the concept of collectivism | Actively participate in collective activities and take pride in the honors achieved by the class and school |
| | Practical thinking | Willing to actively participate in professional related enterprise internships and practical activities |
| | study thoughts | Having detailed and clear learning intentions, plans, and goals |
| | Interpersonal communication ideas | Stay in touch with friends and family, and constantly make new friends |
| | Innovative development ideas | Attempt to use different methods, concepts, and developmental perspectives to solve problems encountered |
| | Consumer mindset | Consumer attitudes, habits, and perceptions towards daily and study goods |

Table 1 shows that there are 7 indicators for the dynamic thinking of vocational college students.

**Table 2** Action indicator system for vocational college students

| Primary indicators | Secondary indicators | Indicator application performance |
|---|---|---|
| Behaviors of vocational college students | Learning behavior | Enjoying reading, not unreasonably skipping classes, being late, leaving early, etc., completing learning tasks on their own and achieving learning goals |
| | Practical behavior | Actively participate in corporate and social practice activities |
| | consumer behavior | Behaviors such as consumption, purchase, and payment of daily and study supplies |
| | network behavior | Learning, entertainment, purchase and other online behaviors |
| | Interpersonal relationship development behavior | The relationship and development status between classmates and friends |
| | self-management | Behaviors such as self-discipline, self-restraint, |

| | | and self-development |
|---|---|---|
| | Innovative development behavior | Reform products and explore new fields through various methods and approaches |

Table 2 shows that the action development of vocational college students includes 7 indicators.

### 3.2 Questionnaire development and validation

This research conducted a questionnaire survey on the above indicator system, and quantitatively analyzed and tested the indicator system.The development and validation of questionnaires mainly go through three stages: initial questionnaire development, initial testing and revision, and verification.

Firstly, prepare the initial questionnaire. Develop an initial questionnaire on the dynamic development of thoughts and behaviors among vocational college students, with appropriate modifications made by professional teachers. The questionnaire adopts a 6-point scale format, with scores ranging from 1 to 6, ranging from "very inconsistent" to "very consistent".

Secondly, initialization and correction. Randomly distribute 50 samples in 10 vocational colleges and conduct a preliminary survey on the questionnaire.

Thirdly, exploratory factor analysis. Based on the results of the test questionnaire, adjust the sentence structure and conduct exploratory and confirmatory factor analysis. The results showed KMO=0.831, Cronbache's Alpha=0.874.

The statistical results show that the questionnaire on the ideological dynamics and behavioral characteristics of vocational college students has good reliability and validity, meets the standards of psychometrics, and can be used as a measurement tool to evaluate the current ideological dynamics and behavioral status of vocational college students.

### 3.3 Formal research and statistical analysis

The formal questionnaire survey adopted a cluster sampling method to select 300 students from 15 vocational colleges, including Shanghai Urban Construction Vocational College, Shanghai Sibo College, and so on, with different majors such as management, medicine, and mechanical manufacturing as samples. A total of 298 valid questionnaires were collected. The effective questionnaire response rate is 99.33%, with 150 males and 148 females, all aged between 18 and 21 years old, involving a total of 4172 data points. The study used SPSS. 20 to conduct statistical analysis on the questionnaire results.

# 4 Analysis of questionnaire survey data on ideological dynamics and behavioral development of vocational college students

### 4.1 Descriptive statistical analysis of data

In order to conduct statistical analysis more conveniently and effectively, this study conducted mean analysis on these project indicators, resulting in 4172 data points.

**Table 3** Analysis of Survey Data Description

| | Mean | | Std. Deviation | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|
| | Statistic | Std. Error | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| politics | 4.4161 | .02976 | .51379 | .116 | .141 | -1.460 | .281 |
| the concept of collectivism | 4.0218 | .03278 | .56589 | .419 | .141 | .557 | .281 |
| study thoughts | 4.2819 | .03183 | .54955 | -.267 | .141 | -.449 | .281 |
| Practical thinking | 4.3311 | .03599 | .62135 | -.358 | .141 | .014 | .281 |
| Interpersonal communication ideas | 4.0447 | .02889 | .49864 | -.225 | .141 | .812 | .281 |
| Innovative development ideas | 4.3322 | .02271 | .39212 | .519 | .141 | -.974 | .281 |
| Consumer mindset | 4.3893 | .02869 | .49525 | .540 | .141 | -1.500 | .281 |
| Learning behavior | 3.9010 | .02758 | .47613 | .476 | .141 | .635 | .281 |
| Practical behavior | 3.7777 | .02869 | .49521 | .790 | .141 | .950 | .281 |
| Interpersonal relationship development behavior | 3.8792 | .02845 | .49117 | .436 | .141 | .675 | .281 |
| Innovative development behavior | 3.9161 | .03240 | .55929 | -.493 | .141 | 1.553 | .281 |
| consumer behavior | 4.5134 | .03627 | .62616 | .736 | .141 | -.334 | .281 |
| network behavior | 4.2987 | .02780 | .47997 | .790 | .141 | -.620 | .281 |
| self-management | 3.6745 | .03545 | .61190 | .379 | .141 | .018 | .281 |

Through the statistical analysis of table 3, it can be seen that the standard error of the 14 indicators ranges from 0.02271 to 0.03545, with low values. The difference between sample statistics and population parameters is small, and the representativeness of the samples is high. The standard deviation of the 14 data ranges from 0.39212 to 0.62616, indicating a high degree of data dispersion, indicating that the data in this survey has statistical significance; The skewness values of learning thinking, practical thinking, interpersonal communication thinking, and innovative behavior are negative, and the sample data is skewed to the left. The skewness values of the other 9 indicators are all positive, and the sample data is skewed to the right; The kurtosis of the seven indicators of political ideology, learning ideology, innovative ideology, consumption ideology, consumption behavior, online behavior, and self-management behavior are relatively low, indicating that the performance of the respondents on these seven indicators is relatively unified and concentrated.

**4.2 Analysis of the correlation between the ideological dynamics and behavioral development of vocational college students**

This research used Pearson's simple correlation coefficient for regression analysis. The calculation formula as followings:

$$P = \frac{E[X-E(X)][Y-E(Y)]}{\sqrt{D(X)}\sqrt{D(Y)}} \tag{1}$$

$$x = \frac{\sum_{i=1}^{n}(x_i-\overline{x})(y_i-\overline{y})}{\sqrt{\sum_{i=1}^{n}(x_i-\overline{x})^2}\sqrt{\sum_{i=1}^{n}(y_i-\overline{y})^2}} \tag{2}$$

$$\overline{x} = \frac{1}{n}\sum_{i=1}^{n}x_i \tag{3}$$

$$\bar{y} = \frac{1}{n}\sum_{i=1}^{n} y_i \tag{4}$$

As $-1 \ll r \ll 1$, the absolute value is larger, it indicates a stronger correlation between two variables. As $0 \ll r \ll 1$, it indicates a positive correlation between two variables, if r= 1, it indicates a completely positive correlation between variables.As$0 \ll r \ll 1$,it indicates a negative correlation between two variables, if$r = -1$,it indicates the existence of a completely negative correlation between variables.As r= 0,it indicates that there is no linear correlation between two variables.

On the basis of the above data analysis, this research conducted a bivariate correlation analysis on learning thoughts and behaviors, practical thoughts and behaviors, interpersonal communication thoughts and behaviors, innovative thoughts and behaviors, and consumption thoughts and behaviors.

**Table 4** Correlation Analysis of Five Indicators

| | | Learning behavior |
|---|---|---|
| | | Learning behavior |
| study thoughts | correlation coefficient | .255 |
| | Sig.(2-tailed) | .000 |
| | N | 298 |
| | | Practical behavior |
| Practical thinking | correlation coefficient | .108 |
| | Sig.(2-tailed) | .063 |
| | N | 298 |
| | | Innovative development behavior |
| Interpersonal communication ideas | correlation coefficient | .293 |
| | Sig.(2-tailed) | .000 |
| | N | 298 |
| | | Innovative behavior |
| Innovative thinking | correlation coefficient | .255 |
| | Sig.(2-tailed) | .000 |
| | N | 298 |
| | | consumer behavior |
| Consumer mindset | correlation coefficient | .179 |
| | Sig.(2-tailed) | .102 |
| | N | 298 |

Through the statistical analysis of table 4, we can get the following ideas:

The Sig.(2-tailed) value of learning thought and learning behavior is 0.000, with a correlation coefficient of 0.255. The correlation coefficient is small, indicating a weak positive correlation between the two indicators.

The Sig.(2-tailed) value of practical thinking and practical behavior is 0.063, which is greater than the significance level (0.05), and the correlation coefficient is 0.108, indicating a weak positive relationship between the two indicators.

The Sig.(2-tailed) value of interpersonal communication thoughts and behaviors is 0.000, which is less than the significance level (0.05), and the correlation coefficient is 0.293, indicating a significant positive correlation between the two indicators.

The Sig. (2-tailed)value of innovative thinking and innovative behavior is 0.000, which is less

than the significance level (0.05), and the correlation coefficient is 0.255, indicating a highly significant positive correlation between the two indicators.

The Sig. (2-tailed)value of consumption thought and consumption behavior is 0.102, which is greater than the significance level (0.05), and the correlation coefficient is 0.179, indicating a weak positive relationship between the two indicators.

## 5 Conclusion

The survey shows that vocational college students have relatively high values of political ideology and collectivism, and have very active consumption thoughts and behaviors, with healthy and fashionable consumption being their consumption orientation. In addition, vocational college students can clearly recognize the importance of interpersonal communication in their lives and studies.

However, there is a weak positive correlation between the "learning thoughts and behaviors", "practical thoughts and behaviors", "interpersonal communication thoughts and behaviors", and "consumption thoughts and behaviors" of vocational college students. This indicates that their thinking is more active, but their action and execution abilities are weaker, and they may not be able to think of it in daily life.

At the same time, we should see that vocational college students have weak self-management behavior. They exhibit outstanding online behavior and exhibit extremely active behavior. The internet is the main tool for vocational college students to study and live.

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