Comprehensive Ability Analysis of College Students on Training Course Management

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Abstract

By exploring the current situation of college students' comprehensive ability and studying their current comprehensive ability needs, this study carefully analyzed how to improve the comprehensive ability of college students. In addition, the paper summarized the influence of college comprehensive ability training courses on undergraduates' comprehensive ability training, and puts forward reasonable opinions and suggestions on curriculum implementation. Intentions by colleges and universities, the joint efforts of teachers and students, the undergraduates truly accepted and participated in the training program, get exercise, improve the comprehensive quality of undergraduates, ultimately to improve the undergraduates to improve comprehensive ability, to lay a solid foundation for employment competitiveness, so as to eventually be able to contribute strength for social development and progress.

Keywords: Comprehensive ability; Comprehensive ability training course; Course management

Introduction

In recent years, under the general attention of all parties, the consciousness of college students to improve their own comprehensive ability is obviously strengthened. Under the guidance of the social environment and the government, colleges and universities pay more and more attention to the cultivation of the comprehensive ability of college students. In order to better cultivate the comprehensive ability of college students, many measures have been taken. For example, colleges and universities vigorously organize and carry out various kinds of activities and competitions for college students to cultivate their innovative thinking and practical operation ability. Set up special comprehensive ability training courses; Colleges and universities strengthen

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school-local and school-enterprise cooperation, build platforms to cultivate comprehensive skills and qualities of college students, and provide good conditions for college students to improve their own abilities

Under the efforts of all parties, the comprehensive ability of college students has been improved, and their employment views are more diversified and pragmatic, but at present, the overall level of college students' comprehensive ability is still low.

For students themselves, most of the time, they do not know what ability they should improve to meet various needs, and many students do not have appropriate learning channels, so they cannot accurately improve their comprehensive ability.

As for colleges and universities, students' feedback shows that there are many problems in the curriculum: (1) laying too much emphasis on theoretical teaching, not paying attention to the rational arrangement of theoretical and practical teaching; (2) Some simple professional courses occupy too many hours; (3) It does not take employment as the goal and sets a narrow range. China's educational model is still too traditional and closed, the phenomenon of academic education rather than ability training, more exam-oriented education rather than personality training is still quite serious (Yu Jian an, Wang Man, & Chen Jiancheng, 2016). The course focuses on theoretical research, not closely related to practical operation, and some content is still many years ago, relatively old. Therefore, students still need to retrain their employment skills after learning, and what is taught in schools cannot be directly applied to existing jobs.

For enterprises, college students are high-quality human resources. Enterprises actively seek cooperation with colleges and universities to provide internship, training and employment platforms for college students. However, in the face of practical benefits and practical effects, few enterprises can cultivate college students for a long time and attentively.

All these result in the lack of awareness and low level of college students in the face of the needs of comprehensive ability. Therefore, in order to meet the demands of the rapid development of society, with social development necessary comprehensive ability of the demand for talents in colleges and universities focus, clear it with the gap between the current college students' comprehensive ability, colleges and universities need to further strengthen the attention to cultivate college students' comprehensive ability, and improper way of education reform to adjust to campus.

Research Objectives

The purpose of this special study is developed from the perspective that it is urgent for college students to cultivate comprehensive ability to cope with the current study and life as well as the work after graduation. The comprehensive ability training course can improve students' abilities in various aspects, and finally achieve the effect of improving students' comprehensive ability. The overall goal of this study is to explore the effect of comprehensive ability training courses on the improvement of college students' comprehensive ability. The specific objectives of this study are as follows:

- Understand the current situation of comprehensive ability of Chinese college students and what comprehensive ability they need most.
- Explore what methods can be used to improve students' comprehensive ability.
- Determine the impact of comprehensive ability course management on the improvement of students' comprehensive ability, and how the practical training course management of comprehensive ability can improve students' comprehensive ability.

Literature reviews

Zhang Mingquan, (2018) discussed the importance of computer professional practical courses to the cultivation of college students' comprehensive ability and the way to implement practical courses in his research of "Practical Courses boost the cultivation of College students' comprehensive ability". With the development of science and technology, colleges and universities are increasingly aware of the importance of cultivating college students' comprehensive ability. Enterprises give priority to comprehensive ability in recruiting college graduates, which also accelerates the reform of college education and teaching. Laying emphasis on practice and laying a solid foundation have become the necessary way for higher education to cultivate high-quality students, and multi-level teaching reform has been put on the daily schedule of colleges and universities. After research until the conclusion: optimize and improve the practice training system, strengthen the construction of comprehensive, design, self-centered practice. Reasonably increase the proportion of practice courses, practice to promote ability. Reasonable selection of practical course teaching content. Promote practice courses at different levels and teach students according to their aptitude. In

order to achieve the purpose of promoting the comprehensive ability of college students through practical courses.

For instance, Huang Xiaoyan, Zhang Li and Lu Jifu, (2014) conducted the research of "Practice Research on the Construction of Off-campus practice Teaching Base and the Cultivation of College Students' comprehensive ability", and discussed that the construction of off-campus practice teaching base is an important content of college education reform, which is conducive to the cultivation of compound talents. It is beneficial to improve the comprehensive quality of college students. Through strengthening the construction of off-campus practice and teaching bases, constructing a scientific training system for creative talents, and taking effective measures such as scientific research and training of creative and creative projects, it plays a positive role in promoting the cultivation of college students' comprehensive abilities such as practical and innovative ability, professional ability and employment competitiveness. This paper makes a deep practical research on the construction of off-campus practice teaching base and the cultivation of comprehensive ability of college students in a university in Guangzhou which the author belongs to, and obtains good results in practice. Moreover, Zhou Jianlan and Liu Lu, (2015) conducted a research on "Influencing factors and Analysis of comprehensive Ability Cultivation of College students". Starting from the study of the relationship between the influencing factors of college students' comprehensive ability cultivation, the DEMATEL method is used to analyze the relationship between the influencing factors, and analyze the influence degree, influence degree, centrality and cause degree of the internal and external influencing factors of college students' comprehensive ability cultivation. This paper finds out the key factors affecting the cultivation of college students' comprehensive ability, and puts forward that colleges and universities should fully consider the improvement of external conditions and internal conditions, and comprehensively improve the comprehensive ability of college students. In additions, Zhang Wen-jing, (2016) has carried on the study of "college students' comprehensive ability cultivation path analysis", starting from the significance of improving college students' comprehensive ability, discusses the effective ways to improve college students' comprehensive ability need to strengthen the new student's education time and intensity, reasonable arrangement of the teaching content based on training target, the integrated use of various teaching methods and means. And put forward measures to ensure the improvement of college students' comprehensive ability, need to reform the way of course assessment and do a good job in service guarantee.

Then, Yu Jian an, Wang Man, and Chen Jiancheng, (2016) "The Cultivation of College Students' Comprehensive Ability: A Study from the Perspective of Assessment." Taking management courses (Management, Corporate Governance) as the practice, the case study assessment framework of "novelty in content, preparation and Presentation performance" was studied by using the form of question-paper survey. The investigation objects are 175 students from 7 undergraduate classes of management courses in Beijing Forestry University. The case study assessment system of "content novelty, literature completeness and Presentation performance" is adopted in the teaching process. The conclusion is that the standardized assessment structure forms a rigid constraint mechanism to improve students' learning motivation. It is beneficial for students to give full play to their autonomy and potential in each link. Finally, Ren Yucheng, Gu Tiantian and Li Junfeng, (2021) conducted the research of "Exploration, Practice and Thinking on undergraduates' Comprehensive Ability Cultivation by College Students' Innovation and Entrepreneurship Training Program", and found the main problems existing in college students' innovation and entrepreneurship training program and carefully analyzed the causes. In addition, it summarizes the experience of undergraduate innovation and entrepreneurship training programs in cultivating undergraduates' comprehensive ability, and puts forward reasonable opinions and suggestions. Through the joint efforts of colleges and universities, teachers and students, the goal of improving college students' innovative and entrepreneurial thinking and ability is realized, so that the comprehensive quality and ability of undergraduates can be further improved.

Research Methodology

1. Population and samples

This study is a quantitative research design. The researcher defined the population as college students in Taiyuan city, Shanxi Province, China. I collected the data of 96 students in Taiyuan Institute of Technology, Taiyuan City, Shanxi Province. Students are in their junior and senior years. The sampling method of random sampling is used to select samples.

2. Data collection and Sampling method

Data collection process including validity questionnaire, questionnaire test and the questionnaire survey procedure, specific summarized as follows: according to the paper reviews problems to sort out in the first place, and consult relevant experts question the validity of the questionnaire, after sorting out the appropriate

questionnaire, in advance to the school to make an appointment time and place of questionnaire survey, to ensure that the valid data allowed by school, Specialized research is conducted after the school receives the request. According to the appointment time, the selected students will be invited to conduct a questionnaire survey. After the students fill in the questionnaire, the number of valid questionnaires will be determined and further analyzed.

Sampling method: select random sampling. Random sampling is widely used in social investigation and social research, which can objectively measure the reliability of inferential values by means of probability, so that such inferences can be established on the basis of science. Because juniors and seniors have different demands for comprehensive ability, senior students need to consider the application of comprehensive ability in employment more, so the sample range is targeted at juniors and seniors, and the total random sample is 96 students.

3. Questionnaire development

In order to achieve the purpose of this study, it is necessary to conduct a closed (structured) questionnaire interview among a certain number of college students, and then input, organize and analyze the survey data by computer, and obtain the research results. In this study, quantitative research can collect a large amount of data, and the results obtained by analysis are more real and effective.

The comprehensive ability questionnaire of college students was developed in this study. The questions used in the questionnaire were designed based on the literature review, objectives and research questions. The questionnaire includes the current situation of college students' comprehensive ability, their comprehensive ability needs, how to improve comprehensive ability, and the impact of comprehensive ability training courses. The questionnaire uses the Checklist Type table to measure data.

Table 1 Questionnaire survey question sources

Components	Indicators	Source
Comprehensive ability needs of college students	learning ability	He Genhai (2008)
	practical ability	
	innovation ability	
	employability	
	entrepreneurial ability	
How to improve comprehensive ability	Reasonable arrangement of teaching content	Zhang Wenjing (2016)
	Reform course assessment method	
	strengthen the construction of off-campus practice and teaching bases	Huang Xiaoyan, Zhang Li and Lu Jifu, (2014)
	strengthen ideological and political work and quality-oriented education	Chen Guozhi (2007)
Influence of comprehensive ability practice curriculum	Improve college students' innovative thinking	Ren Yucheng Gu Tiantian & Li Junfeng,(2021)
	beneficial to the development of students' autonomy and potential	Yu Jian an, Wang Man& Chen Jiancheng,(2016)

Table 1 Questionnaire survey question sources (continue)

Components	Indicators	Source
Influence of comprehensive ability practice curriculum	Improve professional ability	Huang Xiaoyan, Zhang Li & Lu Jifu, (2014)

4. Validity and Reliability

Before the questions entered into the formal questionnaire survey, relevant teachers and experts of the school conducted validity test. For the IOC, I choose to consult the director of engineering training Center and network Center of Taiyuan Institute of Technology about whether the setting of questionnaire questions is reasonable and effective. For reliability test, the constructs were in the range from 0.83 – 0.93.

5. Data analysis

After students fill in the questionnaire, screening is conducted to determine the number of valid questionnaires, and the data of valid questionnaires are imported into SPSS to control the variables, and further analysis, statistics, and conclusions are drawn.

Results

Analysis of demographic characteristics of respondents and comprehensive ability needs of interviewees

The results were found as follows. The grade of the respondents is analyzed. Most of the interviewees are junior students, 63 of them, accounting for 65.6%. Then, senior students are in the minority, there are 33 students, accounting for 34.4%. Engineering students account for the majority of interviewees, 42 in total, accounting for 43.8%. Then, science students were slightly less, 35 students, accounting for 36.5%. Last but not least, there were 19 liberal arts students, accounting for 19.8%. the reasons why the interviewees need to cultivate comprehensive ability are analyzed. Among the interviewees, 48 people, accounting for 50%, think that comprehensive ability is needed because of employment requirements. Then, because the self-requirements are slightly less, there are 36 people, accounting for 37.5%. Finally, because the school requires the least, there are 12 students, accounting for 12.5%. It is the analysis of the comprehensive ability needs of the interviewees in school life. Most interviewees think

that they need learning ability in school life, accounting for 30.2% of the total interviewees. Secondly, 18.8% of respondents think that logical thinking ability is needed. Fewer people, 17.4 percent of the total respondents, think time management skills are needed. Even fewer, 13.5%, said they needed the ability to work in a team. Those who think practical skills are needed account for 10.4% of the total respondents. Those who think organizing ability, communication ability and innovation ability are needed in school life are the least, accounting for 4.2%, 3.1% and 2.4% of the total respondents respectively. Finally, it is the comprehensive ability demand analysis of interviewees in employment. The majority of interviewees think that learning ability is needed in employment, accounting for 24.7% of the total interviewees. Secondly, there are more people who think teamwork is needed, accounting for 18.4% of all respondents. Fewer people, 16.0% of the total respondents, think innovation is needed. Those who think communication ability and practical ability are needed in employment account for 14.2% and 14.2% respectively. Finally, those who think time management ability is needed in employment account for 12.5%.

Analysis of comprehensive ability training of interviewees

The data analysis is based on whether the interviewees have attended the practical training courses of comprehensive ability in school. There are 59 interviewees who have attended the courses, accounting for 61.5% of the total interviewees. The number of people who did not attend the course was smaller, there were 37 people, accounting for 38.5% of the total respondents. For respondents by comparing himself with the students, to attend the training course whether improve comprehensive abilities after data analysis, the majority of respondents think attending courses after ability improved, there are 72 people, accounting for 75% of the total respondents, a few people don't think ability to ascend, have 24 people, accounting for 25% of the total respondents. Participated in the practical training courses ability to improve the cross tabulation on whether the ability has been improved after attending the course is whether to the student in the school participated in the comprehensive ability training course rather than think in after the ability is there a cross tabulation analysis, respondents participated in the comprehensive ability training courses with a total of 59 people, among them 55 people think that there is to ascend, comprehensive ability , accounting for 93.2%, only four people don't think comprehensive ability to ascend, accounting for 6.8%. There are 37 respondents who have not participated in the practical training course of comprehensive ability. Among them, 17 people believe that

their ability has been improved after attending the course by comparing themselves with their surrounding classmates, accounting for 45.9%. And another 20 people believe that their comprehensive ability has not been improved after attending the course, accounting for 54.1%. The time invested in the cultivation of comprehensive ability of respondents is analyzed. There are 53 respondents who choose not to invest too much time, accounting for 55.2% of the total respondents. Fewer people choose to invest a lot of time, 26 people, accounting for 27.1% of the total respondents. The fewest people chose to invest a small amount of time, 17 people, or 17.7% of the total respondents. the data analysis of which methods were selected to improve the comprehensive ability of respondents. Among the respondents, 41 chose to participate in on-campus training, accounting for 42.7% of the total respondents. Fewer people chose to participate in social practice, 26 people, accounting for 27.1% of the total respondents. Even fewer people chose the Internet, 22 of them, accounting for 22.9 percent of the total respondents. 7 people, accounting for 7.3% of the total respondents, chose to refer to relevant books. In terms of the abilities that the interviewees think can be improved by the practical training of comprehensive ability, the most respondents think that the innovative ability and practical ability can be improved, accounting for 21.5% of the total interviewees. Secondly, there are more people who believe that they can improve teamwork ability, accounting for 15.6% of all respondents. Fewer people think they can improve their time management ability and learning ability, accounting for 14.9% and 14.6% of the total respondents respectively. Fewer people, 6.9%, said they could improve their communication skills. Finally, the least people, 2.8% and 2.4%, said they could improve their logical thinking and organizational skills, respectively.

For the data analysis of the shortcomings of the current curriculum setting in colleges and universities, the respondents who think the curriculum setting is out of step with the market demand are the most, accounting for 31.6% of the total respondents. The majority of respondents, 22.6%, think that the teaching content is outdated and the updating speed is slow. Fewer people, accounting for 15.6% of the total respondents, thought that the proportion of curriculum was out of proportion and could not form an organic whole. 15.3% of the respondents thought that the course assessment method was rigid and it was difficult to detect the real level of students. Even fewer, 12.2% of the total respondents, thought the courses lacked features and could not attract students' interest. Those who think the quality of teaching materials used in the course is not high are the least, accounting for 2.8% of the total

respondents. Lastly, to analyze how the school should improve students' comprehensive ability, the majority of respondents, 30.6%, think schools should arrange teaching content reasonably. Fewer respondents, 29.2%, think schools should reform the way they assess the curriculum. Fewer, 28.8% of the total respondents, said schools should strengthen practical teaching. Finally, those who think schools should strengthen ideological education are the least, accounting for 11.5% of the total respondents.

Discussions

The purpose of this research is to explore the main abilities that Chinese college students need in their school life and employment, so as to lay a good foundation for the subsequent improvement of ability by taking appropriate measures.

In order to adapt to the changes in the international situation and the needs of their own social and economic development, many countries have clearly proposed that talents in the 21st century should have such abilities, that is, knowledge, occupation, adaptability, pioneering ability and creative consciousness. According to a survey conducted by the U.S. department of labor, the criteria for talents in the 21st century are :(1) the ability to process information; (2) the ability to deal with interpersonal relationships; (3) the ability to look at things systematically; (4) the ability to deal with the relationship between good people and resources; and (5) the ability to use technology. (Hu Yingjiao, 2011)

He Genhai (2008) conducted a study on "Five Abilities that Colleges and universities should Focus on cultivating college students". Zhou Jianlan and Liu Lu (2015) put forward in "Factors Influencing the Cultivation of Comprehensive Ability of College Students and Analysis" that the cultivation of college students' ability mainly focuses on five aspects, including innovation ability, practical ability, cooperation ability, self-study ability and expression ability. The questionnaire questions are mainly set based on these two theories, and other different ability requirements are added according to the actual teaching experience. The respondents were asked to choose according to their needs in study and employment.

The results show that the most needed abilities of students are learning ability, logical thinking ability, time management ability, teamwork ability and practical ability. Fewer people think that organizing ability, communication ability and innovation ability are needed in school life, so they do not discuss. The most needed skills in employment are learning ability, teamwork ability, innovation ability, practical ability, communication ability and time management ability. Those who did not choose

organizational and logical thinking skills. To sum up, students' most needed abilities in study, life and employment are mainly learning ability, teamwork ability, time management ability and practical ability. And a small amount of logical thinking and innovation.

The learning ability of college students is mainly self-learning ability. They need to have good self-learning habits in daily study and employment and apply the knowledge they have learned into practice. The independent learning ability of college students is not only conducive to the initiative of college students to control their own learning activities, but also conducive to stimulate their subjective initiative and innovative spirit. (Pi Liansheng, 1966)

College students need teamwork skills. In today's environment of accelerated work pace and refined division of labor, individuals are required to have the ability to cooperate with others in addition to the necessary self-competence. (Zheng Zheqiong, 2014) Currently, college students know the significance of teamwork for individuals and collectivity, but they are not good at teamwork habit and ability. Attaching importance to the cultivation of teamwork ability can cultivate the character of learning from each other, the spirit of unity and dedication, interpersonal skills and modesty and studious style.

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College students need practical ability. At present, Chinese higher education emphasizes cognition over practice and knowledge over ability, which leads to the weak practical ability of college students and the lack of job competitiveness. As a result, college students urgently need to improve their professional practical ability. (Fang Xuhua, 2014) By improving practical ability and solving practical problems, students' practical application ability and practical ability can be improved and their good thinking ability can be cultivated.

College students need good logical thinking ability, which can help them better master other professional knowledge. I am good at thinking and have strong ability to analyze and solve problems. When facing problems, I can easily find the key to problems and put forward solutions. I should be able to adapt to the society and environment quickly.

Finally, college students need strong innovation ability, the market economy is in urgent need of innovative talents, many employers attach great importance to the innovation ability of students. Innovation ability is very important for personal development, it can improve the ability to adapt to the society and the ability to make a living, enhance personal confidence, so that individuals have a longer-term development.

Recommendations

Recommendations for further research fall into three broad categories: recommendations from data, study design, and recommendations from gaps found in literature reviews.

First of all, due to the epidemic situation, students of the university can only be selected for investigation and research due to geographical limitations. In order to avoid mass gathering, a small number of research samples are selected for this study, and there may be some research bias. Future studies can promote the findings of this paper by empirically testing the impact of college students' demands and courses in different regions and schools under the background of large samples.

Secondly, the combination of qualitative research and quantitative research can be selected in the research design. In this study, only college students are selected as samples for quantitative research. In future research, college teachers or representatives of long-term cooperative campus recruitment enterprises can be interviewed. Further research on market demand and curriculum itself can promote the further development of this study and enrich the research direction.

Finally, I suggest that future research should find the gap with previous research. For example, with the development of society and economy, the types of comprehensive ability required by college students are constantly changing, so research projects need to be enriched and developed.

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