

Cultivation of the Undergraduate Innovative Ability by Professional Innovation Competition

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Abstract

It plays an important role for undergraduates to participate in college students' professional innovation competition to improve their innovative thinking and innovation ability. This paper expounds the orientation, current situation and future of undergraduates' innovation ability, analyzes the starting point, competition form, harvest and problems faced by undergraduates to participate in college students' professional innovation competition, and puts forward the background and significance of carrying out college students' professional innovation competition for talent cultivation.

Keywords

College Students Professional Innovation Competition; Innovation Ability; Cultivation of Talents.

1. Undergraduates' Innovation Ability

1.1. The Meaning of Innovation Ability

Ability refers to the ability to plan, analyze, model and design problems based on one's own existing knowledge, professional skills and background and the effective use of external forces, such as Internet network tools, digital libraries and information shared by others, and to refine all the means, methods and thinking in the process of solving solutions. The ability of innovation refers to the potential psychological quality that people show in the process of successfully completing the activities of creating new things based on the original knowledge and experience. The innovation ability is a kind of original ability, including the innovation consciousness, the innovation thinking, the innovation means, the innovation practice. Innovation ability is embodied in production practice and social life, that is, the ability to research and develop new technologies, new methods and new processes created to transform the world.[1]

1.2. Composition of Innovation Capability

Innovation ability generally consists of the following abilities:

1. Learning ability. For new things to have the ability to self-study, learning theoretical knowledge is the premise of successful practice.
2. Analytical skills. For projects, we should have our own analysis and understanding, so that projects have the possibility of development.
3. Imagination. New ideas, new ideas and bold imagination are required during the competition.
4. Criticism. Do not blindly follow new ideas, but selectively absorb and accept them.
5. Creativity. Creative ability is the core of innovation ability.
6. Practical ability. Real knowledge comes from practice, and practice is an important part of the competition.

7. Ability to organize and coordinate. To accomplish innovation activities, it is necessary to coordinate all parties and make members play their role to the best of their ability by assigning tasks.

8. The ability to integrate multiple abilities. The value of innovative talents is not only that they have a variety of talents, but more importantly that they can effectively integrate various talents into play.

1.3. The Significance of Innovation Ability to Talent Cultivation

First of all, the country's development cannot leave the talents, era in the development, social progress, the ever-changing era of innovation ability is the core of the national competition, one of the second, by a group of social development and a group of graduating undergraduates to grow, the youth is the backbone of The Times, improve the innovative ability of undergraduates is the key to promote the development of social progress, more importantly, attaches great importance to the innovative ability of undergraduate students directly affect itself is for undergraduate students, innovation ability is one of the important conditions of selection of different companies, therefore, the cultivation of the innovation ability of undergraduates is critical.

1.4. Positioning of Undergraduate Innovation Ability

The innovative ability of undergraduates before there is no systematic study is very weak, uncompetitive, under the guidance of our country and universities, undergraduate students in innovation ability on the basis of a systematic study, but under the objective factors such as course, undergraduate also failed to systemic innovation learning, strengthen innovation ability.

1.5. Ways to Improve Undergraduate Innovation Ability

In order to improve the innovation ability of undergraduate students, the state has actively issued policy support, and colleges and universities have issued programs for the cultivation and improvement of the innovation ability of undergraduate students. Undergraduates can actively participate in innovation and entrepreneurship projects, such as "Internet +" and "Challenge Cup", etc. During the competition, they can make continuous exploration, stimulate and exercise their innovative thinking to improve their innovation ability. I can also participate in the tutorial system. Under the guidance of the mentor, I can participate in scientific research projects, explore and think in experiments, exercise innovative thinking, learn knowledge and methods, and enhance my practical ability. In order to improve the innovation and entrepreneurship ability of undergraduates more effectively, colleges and universities encourage teachers to actively carry out elective courses on innovation and entrepreneurship so as to provide more effective ways for students interested in innovative thinking and innovation ability.

1.6. Current Situation of Innovation Capability

Although various departments and universities have made efforts, the effect of improving undergraduates' innovation ability is still not ideal. Solution strategy has limitations, not affect general undergraduate students, colleges and universities work only study on spare capacity and impact on undergraduates interested in scientific research project, and the degree of influence is also different, to actively take part in the game, experimental and course of undergraduate students, school support is extremely profound influence on the development of their own. Due to the limitation of resources and human resources, the tutorial system cannot popularize all undergraduates, and more effective new measures are needed to improve undergraduates' innovation ability. Moreover, the competition is selective to a certain extent, so some students may choose to give up one opportunity after another to exercise

themselves. In addition, the number of elective courses on the cultivation of innovation ability is limited to a certain extent, and the general improvement of innovation ability still needs more attention from colleges and universities.

1.7. The Future of Innovation Capability

With more support from the country and society and more attention from colleges and universities, the innovation ability of undergraduates in our country will be further improved. Increasing number of undergraduate students, graduate competition pressure increase gradually, more and more undergraduates choose further study to read graduate student, and so on, in the research phase exercise is the main innovation thinking ability and practical ability, talent will study in the graduate student stage comprehensive innovation of knowledge, improving innovation ability.

2. Undergraduate Students Participate in Professional Innovation Competition

"Innovation is the soul of a nation's progress and the inexhaustible driving force for a country's prosperity." The results of the training of innovative talents and the evaluation of discipline competition in Chinese colleges and universities show that it is of great significance to participate in discipline competition to enhance the innovation consciousness and innovation ability of college students. It is the guarantee to cultivate students' basic innovation ability to let them participate in the scientific research team, to let them participate in the real scientific research scenes, to experience the hardships and responsibilities of scientific research, to learn the practical methods of science and to learn the rigorous attitude towards scientific research. The boring observation data in the project will enable students to learn to focus, develop good recording habits, and guide students to respect facts and attach importance to their will and morality. Analyze the problem method in the experiment, enlighten the student to diverge the thinking. By imitating teachers' experimental methods, students can learn teachers' methods and approaches to solve problems. Through careful and standardized experimental operation, students can improve their practical ability, effectively expand their experimental ideas, and learn the ability of comprehensively using theoretical knowledge to solve experimental problems in a more in-depth and systematic way.

2.1. The Starting Point for Undergraduates to Participate in the Professional Innovation Competition

More and more positive response to the call of the country's social and school undergraduate professional innovation competition, hope that in the course of the game step by step to exercise their own innovative thinking and innovative ability, with innovative thinking and innovation ability in graduated with stronger competitiveness, can better adapt to the demand of the society, to create more value for the company, make its own contribution to the country's modernization.

2.2. Forms of Professional Innovation Competition

Professional innovation competitions can be divided into university-level competitions and national competitions according to the organizers. University-level competitions are held by colleges and universities themselves and have various forms to improve the professional ability and quality of undergraduates. The national competition is divided into school-level competition, provincial competition and national competition according to the selection conditions. Generally, the competition notice is issued first. Universities select and recommend excellent works to enter the provincial competition, and the excellent works of the provincial competition are successfully promoted to the national competition. The competition can be

divided into individual and team competitions, the latter being more common nowadays, where team members explore and improve together.

2.3. Gains of Undergraduates' Participation in Professional Innovation Competitions

During the competition, I will constantly exercise my learning ability, understanding ability and innovation ability. In the process of teamwork, I will learn and strengthen my team consciousness and teamwork ability. In the process of discussing the project, I will be more clear about the research direction and project details of the team. Under the guidance of the teacher, I can express my ideas in a more prepared way, get rid of inappropriate or incorrect ideas, and get more accurate and implementable methods. I can also learn how to analyze and solve problems from the teacher.

2.4. Problems Faced by Undergraduates in Participating in Professional Innovation Competitions

With limited knowledge breadth, undergraduates are unable to judge whether their ideas are feasible, valuable or value-creating. Their ideas tend to be ideal, but are not feasible in reality. With limited education received by undergraduates, the knowledge used in the competition needs to be learned from other ways. The selection conditions of professional innovation competition are too high, and the undergraduates who lack confidence and self-learning ability are discouraged.

3. Cultivation of Undergraduate Students' Innovation Ability through Professional Innovation Competition

3.1. Background

To adapt to the "new normal" of China's development[2] China has put forward the economic development model of "innovation-driven development" and the strategic decision of "talent training oriented by innovation and entrepreneurship"[3], which puts forward the requirement of the cultivation of innovative spirit and innovative ability for the cultivation of undergraduates[4].

Based on the combination of course teaching, practical problems and scientific research, college students' professional innovation competition is an activity that stimulates students to connect theory with practice, improves their own practice and innovation ability, and cultivates students' interest in professional learning, innovation consciousness and innovation ability.

The formation of a person's innovation ability is inseparable from the environment he is in. Strong innovative atmosphere for the cultivation of people's innovative ability will play a role in promoting the waves, the school as the main base of talent training, the formation of a strong innovative atmosphere is an inevitable requirement. When college students have an open mind, they will be more persistent in their pursuit of new things. At the same time, because of the existence of open mind, they will have their own subjective views on things and have updated understanding, which will stimulate the formation of their innovative thinking[5].

3.2. Significance

With the development of society, the country's requirements for talents are gradually changing. Students are required to have innovative ability, sense of cooperation and strong sense of social responsibility, and to play an active role in social development. The cultivation of students' innovative ability is not only helpful to solve social problems, but also to a certain extent enriches students themselves, which is of positive significance to the development of students. The positive role of professional innovation competition in enhancing the cultivation of college students' innovation ability is increasingly recognized by the majority of teachers,

students and more universities. Through the discipline competition, students have increased their knowledge, broadened their thinking, and improved their innovation consciousness and ability. In the process of participation, the instructor will find the ideas and methods that are beneficial to the teaching reform, which will have a negative effect on the teaching. Through the active participation of the majority of teachers and students, the quality and connotation of personnel training in colleges and universities have been further improved. Therefore, colleges and universities should attach importance to the development of college students' discipline competition, so as to cultivate more innovative talents for the country and society[6].

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