Discussion on Construction of Sustainable Development of College Students' Science and Technology Innovation Team

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Abstract. The college students' science and technology innovation team is an important supporter and main form of the innovation and entrepreneurship education in college. A harmonious team is evolvable, sustainable and progressive. Based on the analysis of the significance of the college student practice innovation team, this paper examines the significance of colleges and teachers to the team construction. This paper has made some benefit to model for college students' science and technology innovation team.

Introduction

Currently, one of the goals of the reform on higher education is to cultivate innovative talents, and it is a mission for colleges to inspire the spirit of innovation among students and teach them innovation skills. Many colleges are revolutionizing their cultivation system and exploring effective ways. In this process, the innovation team has been gradually tested and recognized as an effective form and supporter. [1] It is very important because students can develop themselves with practical abilities improved.

Knowing about the construction of the college student science & technology practice innovation team in some junior colleges and conducting empirical studies of them, the author believes that colleges and instructors in the team are of great importance.

The Significance of Constructing a Sustainable College Student Science & Technology Innovation Team

1. The sustainable college student science & technology innovation team is helpful to the further promotion of innovation education.

   On the conference of National Science & Technology Awards in 2010, Premier Wen Jiabao pointed out “Scientific and technological innovations are weapons against the international financial crisis and sources of economic prosperity.” “We should put emphasis on cultivation of the first-line innovative talents and youths in science and technology to make intelligent contribution to the innovation-oriented country and the overall well-off society”. As the first-line innovative talents in future, college students are the backbone of innovation. And the college student innovation team is a vital supporter and main form of innovation and entrepreneurship education. [2] The sustainable development of it can guarantee a good, constant and harmonious operation. Therefore, it deepens the innovation and entrepreneurship education.

2. The sustainable college student science & technology innovation team is beneficial to cultivating more innovative talents.

   As is mentioned, the college student innovation team is a vital supporter and main form of innovation and entrepreneurship education. And a team in harmony should develop in a sustainable way and make constant progress. It is the only way in which the participant students can adapt themselves to the team and become merged learning innovative thoughts on science and technology and improving their innovation capacity. [3] Finally, they will become innovative talents. Therefore, as the team develops, it is beneficial to cultivating more innovative talents.

3. The sustainable college student science & technology innovation team is conductive to the enhancement of the innovation capacity of college students.
As for students themselves, their innovation capacity relies on the division, cooperation and instructions of teachers. As the capacity of the whole team grows, they can improve themselves. In the process of instructing students, the author observes that the improvement of the team innovation capacity is dependent on the better abilities of students, and students develop their own abilities through the growth of the team. If the team is interrupted or it splits up, the students will lose the foundation for improvement. Most of them will stagnate and even fall backwards, though few might be something in terms of innovation and entrepreneurship.

The Importance of Colleges to the Construction of the College Student Science & Technology Practice Innovation Team

Management is the key to construction of sustainable development of innovation team.[4] In order to improve the innovation and entrepreneurship capacity of college students, it is necessary to build an overall ecological system of innovation and entrepreneurship education, which requires a good circular as the natural ecology, a perfect innovation and entrepreneurship education system and a positive atmosphere. The system consists of connected components including colleges, governments, enterprises, families and students which influence and support each other. Colleges, as the backbone of the system, play an important role.

1. Colleges can provide places and research environment for innovation teams to support the sustainable development.
   
   The team which the author instructed is an example of sustainable development. The college founded a specific lab for the student science and technology practice innovation team, based on the existing labs. Each participant could have his/her own place. Besides, on the foundation of the current facilities, the college was willing to purchase apparatus and equipment required in the innovation projects to support them.

2. Colleges can fund the sustainable development of the innovation teams.
   
   The fund of colleges is the foundation of the development of all college student practice innovation teams. There is a demand for fund in scientific and technological practices and innovations, and colleges provide much financial support [5].

3. Colleges can give policy support to innovation teams after referring to the contribution and the remarks of instructors, in order that there is motivation for the sustainable development of these teams.
   
   Only when the students actively participated into innovation practices can innovation teams have the source of motivation. In this way, the innovation and entrepreneurship education can be further promoted. Colleges can go further to give policy support to prominent students in the teams in aspects of the post-graduation entrance examinations or the career development. As far as the author is concerned, some colleges have made trials with satisfying effects.

The Importance of Teachers to the Construction of a Sustainable College Student Science & Technology Innovation Team

1. The source of projects and the explanation of key technologies
   
   In the study, the author found that the projects of these college innovation teams were mainly designated by instructors or proposed by students themselves. If the instructors are familiar with the research field and the research interest, they can instruct the team and explain the key technologies well.

2. The search for references
   
   Reading relevant technological literature is indispensable to the improvement of innovation capacity. Therefore, the search for such references is significant to college students who work on scientific research and technological innovation for the first time. As the instructors have already mastered related skills in their learning and research, they can give useful instructions on the search for references and other relevant information.

3. The team organization and management
The instructor is the organizer and actual leader of a college student science & technology practice innovation team. Knowing about the ability and interest of each student and the coordination among members, the instructor can organize and manage the team well so that the whole team can be in good operation. Thus, there is a firm foundation for the sustainable development of the team [4].

4. The assistance in research and innovation of key technologies

Most projects of college student innovation teams are provided or arranged by instructors, so the assistance of instructors is indispensable though the research on key technologies involved is conducted by students themselves. The instructors, who are familiar with these technologies with a deep understanding of the research and innovation, can help students with their studies, guiding them in the correct direction.

Summary

Currently, the domestic colleges are all exploring and developing college student science & technology practice innovation teams, and to establish a sustainable college student science & technology practice innovation team has become an important issue. The concept of sustainable development is a national strategy and vital guidance, which requires the engagement and efforts of students, teachers and colleges in the establishment of the college student science & technology practice innovation team. With consideration about how to construct a sustainable college student science & technology practice innovation team, the author will work hard on related practice and research to go further in terms of college student innovation and entrepreneurship education.

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Reference


