The research on university curriculum reform for innovative talents cultivation

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Abstract. In the recent years, the social demands for college graduates are gradually increasing with the China's economic development. Most of the colleges and universities pay more attention on technical expertise and capabilities training, but neglect the cultivation of the students' innovative spirits. According to the author's researches, the university curriculums face many problems in the modern society. It's difficult to cultivate innovative talents for the rigid university courses and modes of teaching methods. In essence, setting the courses and educational modes following times are the basics to strength the students' moral qualities and worldviews. In particular, the universities at home and abroad pay more and more attentions on the curriculum reform to promote the researches on university courses reform. This paper introduces the methods and concepts for course reform beginning with the issues in the current university education.

For most Chinese universities, the old-fashioned university courses caused negative effects on innovative talents cultivation. Because many majors have very clear professional employment direction without too many selections, the universities directly employ the methods of instilling knowledge which seriously affects the innovative abilities of college students. Many talents with strong hands-on abilities cannot be found and encouraged in modern university education, that's the main drawbacks of current university education and the reason for educational methods innovations. The following will discuss how to cultivate the innovative talents, propose the new type of teaching methods and curriculum contents, and deeply analyze university courses need to be reformed.

The state of art of current modern higher education

- (1) The rigid school education affects the students' abilities to innovate. Chinese universities always educate the students based on different specific majors which aren't wrong themselves. However, they need the good learning as the premise, that is, only when the students can well master the knowledge in the major, the sub-specialties education can achieve the satisfactory effects. Otherwise, the sub-specialties education will negatively affect the students' innovation abilities because the constrains of the majors will easily break the integrity of the knowledge during learning which will lead the student cannot well understand the curriculum and application of professional knowledge.
- (2) The neglect of campus cultures will affect the students' innovation abilities. The campus cultures mainly refer the cultivation of learning ethos. Many universities are engaged in cultural construction in the form buildings, such as the establishment of school square and dance square, etc. The hardware cannot really reflect the campus cultures. In researches and analysis, the author find the campus culture greatly affect the students' development. If the campus cultures focus on innovation, the students will be affected subtly by the innovative ideas. Meanwhile, the learning ethos should be the core of the campus culture. Each school should have its own unique characteristics and professional educational philosophy.
- (3) The low efficiency of the college education results in the old-fashioned college course content. The old-fashioned college course contents are mainly reflected in two aspects-first, the college education methods are out of date due to the teachers are not clear about the innovative points of the courses. The teachers teach the students by experience, even use one way to teach in decades, which greatly hinder students' innovative spirits because the knowledge obtained by the

students fail to match the new knowledge and the development of current technology. More badly, it will results the weariness of college students some of which even indulge in the games. Second, the university curriculums themselves do not contain innovative elements and sense of innovation, which led the students to face one learning method and one textbook decades. Overall, the old-fashioned of the teaching contents and ways are the reasons for the low efficiency in the college education and also for the loss of students' innovative spirits.

(4) Disciplines are not truly diversified. The diverse disciplines will provide students exposure to different knowledge from different sources, and ultimately achieve the purpose of cultivating talents. However, many universities have not done enough work on diverse disciplines. Although many universities offer electives courses outside the mandatory courses, there are big gaps between the definition of diverse disciplines and course management. Therefore, the establishment of a wide range of disciplines is one of the main problems for the modern university education.

The discussion on modern college curriculum reform for the cultivation of innovative talents

- (1) Scientifically select and arrange the course to promote the overall development of students. The scientific courses selection has two aspects: For one aspect, the teachers should scientifically arrange the teaching methods to increase teaching quality. Specific measures should be taken on class and off class. First, teachers need to seriously study materials for teaching to grasp the key and difficult points in the materials. Second, the teachers should understand the students' existing knowledge, skills and their interests and learning needs to evaluate whether the learning methods are accessible. Finally, teachers should consider how to teach students including how to organize materials and activities in each class. For another aspect, the main interests and educational methods of different students should be found by investigating and researching the students in order to promote the overall development of the students, such as the courses integrating theories and practices. Only scientific courses and contents selection can cultivate the real innovative talents.
- (2) The establishment of major courses and form of teaching. Based on the context, the old-fashioned courses contents and teaching methods lead the low efficiency of college education and the low development level of innovative spirits. Therefore, the problem should be solved beginning with the contents and educational formats. The specialized university courses expand the overall quality of the college students to some extents. After the teachers master the teaching of the specialized courses, students should also be actively involved in education and research of professional courses. Simply speaking, the specialized courses are to make every college student has skills. So for universities, the students should understand the essence of professional courses which requires the college educators to change in contents and teaching formats. This is the best way to cultivate innovative college students.
- (3) The university should establish campus teaching cloud platform to meet the requirements of different students through cloud technology. With the development of science and technology, many technology products are becoming increasingly popular among college students which distract the students. Therefore, the schools should actively develop technic platform to promote new types of learning methods. The products in cloud environment are products with the virtual data storage as the cores which can store all of information customers want. Generally speaking, the knowledge products in cloud platform can be divided into audio/video products and text-based products. The audio/video products are mainly about the contents of audio, video, and auxiliary materials, etc. The text-based products are mainly about documents and pictures. However, in the cloud environment, the storage and use of the products are easy to use, safe and flexible. In addition, the cloud platform can provide personalized enterprise-class mail service with features of safety and fast, simple management, and convenience. Therefore, the virtualization technology integrates the learning resources to provide users with virtual service and simplify the procedures.

The development and cultivation of students' independent learning abilities

The self-learning of college students is a kind of learning ability which is also a type of innovative cultivation concept. According to the author's investigation and analysis, many college students don't have strong self-learning abilities. Depending on the detailed investigation, most of the college students are not interested in the college curriculum and only a few of student can self-learn for exams. Additionally, majority of students are not interested in extracurricular books which also reflect the students' autonomy is not high. In general, there are two main factors, namely the internal and external factors.

(1) The student autonomy determined by internal factors

For college students, the internal factors affecting students' learning autonomy are always complicated and they will vary depending on persons, but there are no rules to follow. The present stage of research on self-learning methods shows that the necessary cognitive strategies, setting goals and self-control will greatly affect college students' self-learning in which the individual's cognitive strategy is external information processing methods, mainly including strategy repeat, fining strategy and organization strategy. The general goal setting includes learning knowledge and growth skills as the goals or self-worth as the purpose of studies. According to the researches, the students on the purposes of learning knowledge and skills are more willing to self-study. For the self-control of willpower, the college students are supposed to have better self-control. But due to institutional influence of Chinese universities, most of the students in high school are hard working for university and after attending the university, the study will not be the most important tasks, which will greatly affect the students' self-learning.

(2) The student autonomy affected by the external factors

There are lots of factors affecting the students' autonomy which can be divided into three points specific to college education. First, it's the immobilization of teaching modes; second, it's the rigid curriculum design; third, it's the effect among the groups of college students. The China's university teaching theories should aiming at employment and high-tech talents cultivation, however, most universities can't achieve the goals which only teach students indoctrinations. Meanwhile, because the curriculums are designed too rigid, many students fail to put interests and energy in study leading to low teaching efficiency. Finally, the thoughts in the student population are instable and each student has different thoughts. No matter the employment or the further study will affect the study attitudes of the students.

Therefore, it's the main purpose and optimal way for university education to allow the students to receive more autonomous learning awareness with curriculum reform. Also the cultivation of self-learning abilities has positive effects on promoting employment for the college students.

Conclusions

In recent years, the social demands for the college talents are gradually increasing as Chinese rapid economic development. Many colleges and universities focus on training the students' technical expertise and capabilities, but neglect the cultivation of the students' innovative spirits. For most Chinese universities old-fashioned university courses have negative impacts on cultivating innovative talents because most of the majors have very obvious employment requirements without too many options. Many colleges and universities choose to directly employ the method of instilling knowledge which seriously affected the cultivation of innovative abilities of college students. Therefore, the author organizes materials from various aspects, investigates and analyzes the current college students to propose that Chinese modern university curriculum reform should be on the purposes of cultivating innovative talents. The methods are to scientifically select courses to promote overall development of the students; to control the contents and educational methods of the major; to build the in-campus cloud teaching platforms to meet the different requirements of the students and to promote the cultivation of innovation talents by cultivating the students' independent learning abilities.

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