Research on General Education Curriculum Systems in China and Foreign Countries

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Abstract: At present, most universities in China carry out the major education mode of separating science and technology and liberal arts to focus on developing all kinds of specialized training colleges. The ultimate aim of them is cultivating talents who are skilled in one or two fields. For college students, this kind of major education mode will limit the freedom of their choice, and their horizon will be restricted as well in a long time. This paper takes Japan, the United States, Britain and other countries as examples to analyze the room for improvement of college major education. What’s more, the paper will present some defects on the current general education curriculum from the view of college students at Beihang University, with a comparison between Beihang University and Massachusetts institute of technology, Columbia University and other research universities. In the end, this paper will put forward some relevant rationalization proposals and suggestions aiming at this issue.

Introduction

With the current development trend of globalization and high-tech industry's universal application, many colleges all over the world reform their education theories which means strengthening the college general education in the process of reformation in order to meet the needs of the development of science, technology and society. In the process of the reformation, the university takes courses as the breakthrough point, adding new curriculum and the adjustment of curriculum structure. This new change is of significance to meet the new demand of the society, and thus they can achieve the goal of the reform of higher education. General education is to improve undergraduate learning with more high quality and high efficiency. At the same time, the general education develops the students' knowledge and broaden their horizons to improve their competence levels except completing basic scientific knowledge teaching in the past.

Theoretical Background

The first people who came up with the concept of general education was professor Packard in the United States. He believes that General education which includes courses in classical, literary and scientific subjects is a necessary preparation for any major study of students. It provides students with the teaching of all branches of knowledge, so that students have a comprehensive understanding of the general state of knowledge before they commit
themselves to learning a special and specialized knowledge. Therefore, general education is a rich, multi-dimensional, multi-stage historical category[1]. In fact, all of these statements reflect a common understanding that education whose basal purpose is to build the concept of "human nature". So, in a certain extent, it is also a kind of humanistic education which aims to promote the improvement of human nature and the shaping of ideal personality, which is the essential attribute of education[2]. For college, the ultimate purpose of general education is to make students form independent thinking and critical thinking skill in all dimensions view of the problem in the usual education teaching. And after learning knowledge, students have the ability to apply what they mastered to the real life which will make a better life. From the perspective of the development needs of the society at present, it is an increasing demand for all operating posts to absorb comprehensive talents with strong comprehensive qualities. They are proficient in professional knowledge and strong communication skills in groups and ability of team cooperation, management and proper handling of problems[3]. Therefore, the significance of education in general education is not only to teach students the knowledge of multiple subjects, but also to enable students to learn how to analyze and solve problems from multiple disciplines and angles[4]. Transdisciplinarity in general education is considered a competence for sustainability in curriculums[5].

Currently, Education Studies courses integrate a number of disciplines to investigate the learning process in context[6]. The research on the undergraduate course system of universities can be divided into the following three aspects: (1) the research on the necessity of education reform in American research university, (2) research on the current situation of education curriculum system in universities, (3) the research on the implementation of the undergraduate curriculum system of research universities mainly focuses on curriculum management and curriculum implementation[7].

Our country has a very extensive history and experience in the study of curriculum but regard it as a field of specialization is from the 1980s. With the increasing of university status, the study of university courses is also increasing, especially after the implementation of the general education system reform[7]. Chinese scholars study of university courses from all aspects and angles whose purpose is to increase the quality of higher education and cultivate a "general, multifaceted talents".

Current Status of General Education Courses in Foreign Research Universities

In American research university, Harvard University shows that its core curriculum includes the study on the foreign culture, history, literature and arts, moral reasoning, quantitative reasoning, science, social analysis and so on in the field of seven courses . Harvard University set up liberal core courses is to provide professional education through outside view, instead of working for the professional services of humanities and social sciences education, making students get general, extensive knowledge with promoting the fusion of science education and humanities education[1].

At Columbia University, liberal core curriculum plan also includes the humanities, science, language. And humanities contained in the literature, art, music and so on. University set up language writing courses aimed to improve the students’ comprehensive ability in language expression and essay writing.

MIT’s education implementation of undergraduate students combines liberal education with professional education, and the concept of liberal education is equivalent to the general education described in this paper[8]. Its education curriculum is divided into two categories:
humanities and social sciences, science and technology. Liberal education in MIT contains many scientific fields, such as economy, politics, law, modern language, culture, basic science at present. MIT combining science and humanities to create a good learning atmosphere and environment for students which fully reflects the students' individuality and commonness and highlights the “globalization and diversity ” values. Through Lewis’s reform of the course of MIT, he gradually developed MIT into a research university with “Advantages in engineering, Solid in science, and fine in arts”[9].

From the above data and the actual situation, most of the research university in the United States set up different levels of writing and expressing courses in the first year of college courses. Courses can be divided into three levels: (1) primary expository writing which is responsible for students who are not really good at writing or the students who are lack of expository writing experience. (2) Middle class. In this course, students will be taught in small classes so that every student can get enough attention. The course requires three papers, five to ten pages each. (3) Senior class is also called public speaking practice class with no more than 12 students in each class, focusing on the skills which are needed to develop and enhance public speaking successfully[8].

Measures taken by the general education by American colleges and universities are mainly the following three points: (1) Combining the general education and professional education, rather than separate or opposition and stressing the comprehensive and interdisciplinary course. It will train the students’ ability to solve practical problems in the real world. (2) Broadening the general education approach and attaching great importance to strengthen extracurricular practice and study abroad such as the third course (3) Advancing the Shared network curriculum[10].

Japan now use integrated curriculum department instead of the university education. What’s more, Japan emphasize the importance of interdisciplinary education and general education in the process of university education in general education thoughts [11]. At the university of Tokyo, in the early course includes system, such as “basic subjects”, “comprehensive subject” and “theme lectures”. “comprehensive subjects” is the main body of the general education core curriculum group, contains six categories: “thought & art”, “international & regional”, “social system”, “human environment”, “material life” and “mathematical information”[12]. The university of Tokyo always runs through “nurturing socialist education” in the general curriculum system to give the student opportunities to learn professional courses and basic scientific knowledge and improve mellow thoughts in long-term accumulation.

Analysis of Historical Development and Current Situation of Education in China

Education in ancient China mainly aims at cultivating human’s perfect personality and attaching importance to morality education which is called “being a person” and “treating things”. It can be seen that it is not a professional or vocational training for education which has something in common with general education. Since 1995, the ministry of education has actively promoted the reformation of “general education” in universities. It is a development in the higher education after the founding of our country which we emphasized too much on professional education and ignored the college students’ comprehensive quality education. The purpose is to cultivate the complete, educated and high-quality people through strengthening humanities education[1].
Although at present our country is universally implemented “fade out professional, strengthen basic education” teaching reformation, but there are still a lot of phenomenon of laying too much emphasize on the professional knowledge and ignore the humanities and humanistic, ethical and art education which often make the university develop talents who own high professional knowledge level but are lack of the breadth and width of knowledge. In these cases, they’re usually unable to apply what they learned before into reality to make a better world. In terms of curriculum setting, there are also some problems in the following aspects: first, the curriculum system is not complete and the structure is a little bit unbalanced. Second, pay more attention on subject curriculum and light other courses relatively. The practical courses are neglected.

Science and engineering colleges and universities such as Beihang University who was unavoidably added many curriculums in computer and mathematical logic area before the reform. In addition to some of the required courses, students study little in the aspects of literature and art study. Actually, Beihang University was founded in a special background, because in 1952 national departments started a big adjustment, such departments merger for the industrialization of new China which also represented an important duration in China. But it also generated a lot of disadvantages, one of the most serious is the simplification of cultivating talents and excessive emphasis on professional talent, especially the cultivation of for engineering and technology of professional talents. But in 2017, Beihang University implemented set up a school named “Beihang school” which means the university will pay more attention to the general education of undergraduate and gradually fade out “professional education” at the same time. Under this idea, students will mainly learn basic skills and learning content range is relatively more widely than before in the first year.

But there are also some shortcomings. The courses in the fields of art and literature is still relatively poor, so the students’ ability in expressing and writing is not good enough, which is common in many science and engineering college.

Discussion and Suggestion

From the point of current research achievements, American universities on the general curriculum relatively more wholeness and completeness, so we can learn their experience as reference in the early stages of the implementation of the general education curriculum system to improve the efficiency and quality of general education reform. At the same time, the university of China and the United States has similar place in the set purpose and field division which will give us a basis to refer to the United States in the general education curriculum. From the perspective of general courses, American research universities set up courses on basic skills, while most universities in China are political theory courses. Therefore, we still need to add some similar courses to enrich the selection of courses, so that students can choose courses more widely and the field of knowledge will be broader.

In addition to, social and linguistic representational systems, also known as Discourses, shape how individuals perceive their social worlds, including their own identities. Compared with most of research universities in foreign countries set up writing courses in the first year of college, the domestic research universities’ writing courses are relatively less, especially science and engineering colleges, such as Beihang University. Although there are also some required courses in the language, they are mostly about the theory and less involved in the oral English and writing ability. And the training intensity is not enough to meet the standard for science and engineering students in language expression, which is of importance for the
development of students in the future. Therefore, adding some courses about writing skills is very necessary which can not only improve the general education curriculum system, but develop and intensify the students’ comprehensive ability to have a better adaption to the rapid development of society and the new era of new social needs.

References


