

Consideration on the Credit System Reform in Universities

Fang Yiyuan^a, Yuan Tianfu^b, Wang Yongqi^c

College of Electronic and Electrical Engineering, Shanghai University of Engineering Science, 333 Longteng Road, Shanghai, China 201620

^aevafang888@126.com, ^byuan.tf@163.com, ^cwangyongqi17008@163.com

Keywords: Credit system, teaching management system, self course selection, quality education

Abstract: Credit system is a teaching management system. It uses the lowest total credits required as a measure of the amount of student learning and graduation criteria, and uses students' self course selection as the premise. It overcomes the drawbacks of the existing academic system. It truly enables students learn to use, and play to their strengths. It helps to improve the quality of education, promote the education reform, and improve the speed and quality of our personnel training.

Introduction

Credit system is a kind of teaching management system corresponding with the academic year system. The academic year system is the teaching management system which uses the academic year as the unit to measure students' academic accomplishment. While credit system is the teaching management system which uses the lowest prescribed total credits as a measurement of students' total learning and graduation standards. Credit system is one kind of educational model that uses credit as the basic measurement unit of learning. In this model, the students can independently select their courses under the guidance of their instructor. The university uses the total credits the students made to measure their total amount of study. The total credits achieved will determine whether a student can graduate and get a degree. Visibility, the main characteristic of the credit system is course selection under instruction[1-2].

The Present Situation of Credit System

Credit system originated in the United States in 1894. Harvard University is the first university using credit system. Harvard Medical School created the credit system on the basis of the elective system. By the early 1900s, the vast majority of American colleges and universities were gradually introduced to use the credit system. Now credit system has been widely implemented in foreign universities. In this system, students can graduate in advance or postpone graduation as long as the credits required reach to the school regulations.

In 1918, Peking University took the lead to implement elective system. In 1978, some domestic qualified university began to try the credit system. With the development, Chinese education sectors increasingly recognize the importance of credit system to the development of students. In recent years, many universities began to practice the credit system, so that more students can soon become useful^[1]. Credit system reform has been fully open in our country's universities[3-4].

Advantages and Disadvantages of the Credit System

Necessity of the Credit System. The implementation of the credit system is not a temporary rise. It is the result of the development of times. The education system put forward by the need of talent and the development requirements of the times is truly reflected in the quality of education. Today's society requires a lot of different kinds of people, but the present education system lags behind the demand for talent of market economy. The implementation of the credit system is conducive to the reform of education and teaching; is conducive to the implementation of new curriculum; and is helpful to improve student qualities. Implementation of credit system is a good way to find talent, and train talent early[5].

Advantages of Implementation in Credit System

Credits instead of academic years. In the credit system, the rigid teaching plans and educational system are replaced by the flexible teaching plans and educational system. The original arranged courses are replaced by the elective courses. The students are allowed to arrange their personal learning plan according to their abilities and interests; even change their majors. This requires a greater time flexibility and course selection flexibility in our teaching program.

Enhance Sense of Competition. Teachers can enhance their sense of competition and improve their teaching effect. Schools can use the number of enrollment as one of the evaluate indicator of teaching effectiveness.

Truly Achieve "Choose what I Love and Love What I Need" . The credits system can stimulate students' enthusiasm, initiative and independence. This is helpful for individualized teaching and improving students' interest. Also this is helpful for developing students' intelligence and personality, and effectively developing their potential. Students are different in the speed and process of acquiring knowledge due to their different intelligence and ability. Credit system allows students who have spare capacity to learn more credits; allows them to take elective courses cross-grade and multi-disciplinary; allows the students who finish the required credits in advance graduate earlier. On the other hand, the students with learning difficulties can slow down their learning speed and complete the required courses of teaching plan over a longer period of time. Thus through elective courses, all types of students are fully mobilize their enthusiasm, and fully use of their learning potential.

More freedom to choose courses. Within the prescribed effective enrollment time with greater flexibility, students have the freedom to choose certain courses. As long as the students complete the required courses and the necessary practical activities of the teaching plan, as well as choose to learn some of the elective courses to finish the total credits required by the teaching plan, they can graduate in advance.

More Reasonable for Employee. The credits system is more favor of employees to arrange reasonable time to learn. With the rapid development of science and technology as well as the urged competition of market economy, many employees have needs and necessary to learn new knowledge and to be retrained. But the original academic year system teaching plan is so rigid that these students are very difficult to coordinate their learning time and work schedule. Also under the original academic year system, these students do not have enough room for maneuver in course selection. The courses they studied don't have close relationship with their work. This useless study leads to low learning enthusiasm. Under the implementation of credit system, the students can arrange learning time according to their own situation, and study in a flexible way. At the same time, these students can select the required courses according to their work needs and their personal interests to achieve the purpose of study and work simultaneously.

Favor of Teaching Content Update. Credit system is characterized by the elective. While the social needs of talent are convergent with the market economy. This promotes teachers to develop more and better elective courses, particularly add the new technology, new knowledge, and new scientific research achievements into teaching content.

Disadvantages of Implementation in Credit System

Although the credit system has many advantages, it still has some disadvantages. They are expressed in the following aspects:

1. Since credit system use elective as the premise, it needs significantly add elective courses. In front of a large number of elective courses, student enrollment will fall into certain blindness. This is likely to cause fragmentation of knowledge structure and result in the learned professional knowledge lack of systematic, complete and scientific. Thus, in the credit system, instructor system is essential.

2. The credit system is a kind of teaching management system which uses the amount of learning as computing unit. The implementation of the credit system gives students greater freedom elective. There are relatively few restrictions for students. This will inevitably cause a few students in order to get enough credit for the graduate purpose and only take easy courses for credits. That's the reason why the instructors have to guide students in the elective.

3. The conditions of implementing credit system are very complex. It will put forward new demands in the respects of numbers of classroom teachers, student management, teacher management, teaching management and teaching plans.

Consideration on Implementation of the Credit System Reform

Based on the analysis of the advantages and disadvantages of credit system, I think that universities need the implementation of credit system, also need the implementation of the corresponding instructor system. The instructors should guide students how to select the courses according to the needs of their majors; guide the directions of their studies according to their characteristics and specialty; guide students to understand the true meaning of the credit system. Here I'm going to talk some personal opinions on the credit system according to my own study experience in the foreign country.

First, the main purpose of the credit system is to open students' mind and broaden their knowledge; to improve their interests in learning; to identify and explore their own strengths. The credit system is for the students to be fully prepared and lay a good foundation for their future work; rarely just for early graduation. In the foreign countries, the students will use their holidays to work in the company while studying and gain practical work experience to improve own ability. Meanwhile, in the process of working in the company, the students will recognize what courses are essential to their future work. This will not only help them better choose a course, but also provide the course directions for the instructors. Thus, the credit system reform helps students to learn knowledge they really need.

Second, the credit system reform must be supported by the administrative department of education. The credit system is an education management system. It must be strongly supported by the education authority during its implementation process. Only under the support of the education authority and under the establishment of appropriate policies, the credit system can be expanded effectively.

Again, we must update the ideas of education. China's current education system and some of the management system are not suited to the development of the credit system. To implement the credit system, the idea of education must be updated from the education authorities to the universities management until each teacher. On one hand, the credit system endows students learning autonomy which will lead a lively teaching situation in the universities. This requires to establish a new set of enrollment management system as well as educational management system. In addition, we need to use modern management tools to control the teaching process and quantitative management to achieve the management procedures, system normalization and quality standardization. On the other hand, teachers must set up a variety of optional courses and must constantly update their own knowledge to make the curriculums meeting the needs of social development. One same course should be opened by several teachers at different times to provide more flexibility for student selection. Furthermore, the school must develop an effective evaluation system to reasonably evaluate teachers' work. At the same time, each teacher should have a retraining opportunity to update their knowledge. If the old ideas of education are not changed and the appropriate evaluation system is not developed, it's difficult to carry out and implement the credit system.

Summary

In today's globalization of knowledge and needs of diverse talents, it is necessary to implement the credit system. The credit system overcomes the shortcomings of the existing academic year system.

Thus students can really learn to use; can fully play to their strengths; and better serve the society. It will promote improving the quality of teachers and promote the quality of education to a new climax. It will make education reform to develop in depth, and improve the speed and quality of our personnel training.

Acknowledgements

This work was financially supported by the Course Construction Program of "VLSI Design Technology" (k201502005) of Shanghai University of Engineering Science.

Reference

- [1] The advantages and disadvantages of the credit system. <http://wenku.baidu.com>
- [2] Wang Xuemei, Ma pinghu: Discussion on Credit System Reform in Chinese Universities. Journal of Heilongjiang College of Education. Vol.29(2010).p.27
- [3] Xiangyang: Problems and Countermeasures of Credit System Reform in Universities. Modern Education Science. Vol.6(2009), p.9
- [4] Chen xiannian: Analysis of the legal basis and the Credit System Reform Measures in Universities. Jurnal of Ningbo Institute of Education. Vol.11(2009), p.17
- [5] Li Mengyang: A Comparative Study of the Credit System and Academic Year System. Science and Technology Innovation Herald. No.22(2010), P.169