Study on the Methods of Promoting Students' Initiative Learning in Classroom Teaching

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Abstract. This article addresses on the college students’ learning problems. First the importance of initiative learning quality of students is discussed. Then, by analyzing the current students’ learning characteristics, some hallmarks of college students are summarized, which are the independence, self-consciousness and creativity. Then focusing on Engineering Graphics courses, some teaching methods are designed for cultivating students’ initiative learning.

Introduction

Initiative learning refers to as independent individuals, according to the requirements of the society and their own development needs, pay attention to dig their own internal non intelligence factors, give full play to the subjective initiative, good at asking for advice, efforts to forge ahead, and actively participate in the process of education and teaching, so as to obtain the comprehensive development of conscious activities [1]. In a broad sense, it is a kind of positive mental activity process, and from the specific form of expression, it is a positive learning attitude as the existence in contrast to the passive learning attitude.

Classroom is a typical place of mutual learning, information exchange and exploration for groups. Students, as the masters of learning, their expectations, learning attitudes, learning emotions and learning readiness factors greatly affect ecological harmony of the classroom teaching. While teachers, as the teaching guide, in the choice of lesson preparation and classroom teaching strategies, should actively deal with those factors as presuppositions, then in long-term form their teaching styles [2, 3]. The so-called learning initiative refers to the students in the dominant consciousness, willing to learn. To cultivate students' initiative in learning is the requirement of the students' subjectivity, which is based on the teacher's scientific guidance. Students' initiative and creative learning, is the center of education and teaching activities, the basic mode and way of education, and the essential requirement of quality education. Students learning initiative can be only cultivated instead of taught. Therefore, to create a proper environment for students to learn the initiative is very important.

Analysis on College Students’ Learning Characteristics

As a kind of social group, college students have unique characteristics in the course of study.

Independence

College students in the learning process, according to their own learning characteristics of the unique choice of learning methods, independent, strategic solution to the problem of learning. Independence is a basic characteristic of university students’ learning process, and it is the process of university students' independent study of professional theoretical knowledge and independent scientific discovery and practice. Independent ability is required in mastering professional theoretical knowledge, or in the scientific research activities, or being engaged in the practice of the application of knowledge. Meanwhile, these activities can cultivate students' independent learning, independent exploration and the ability to work independently. The set of the above-mentioned abilities is learning initiative performance.
Self-consciousness

Nowadays in the learning process, college students can make their learning strategies, develop learning plans, determine the learning contents, arrange the learning time, control and regulate learning behaviors, and give feedback and evaluation on their learning effects. Self-consciousness is one performance of college students’ active learning.

Creativity

University study is a kind of creative activity. In the university learning process, students not only inherit the accumulation of their ancestors’ professional theoretical knowledge, they also engage in scientific research activities, cultivating the creative ability, and master the method to create. And the progress is gained under the guidance of teachers when step into a high level stage of learning, therefore creativity is prepared for their future jobs. College Students' initiative learning requires a high level of learning skills, including creative thinking and meta-cognitive skills. Creative thinking breaks the fixed pattern of thinking, with a novel and different way of thinking, and then generate the new point of view.

Problem Definition

At present, the general situation is that the contents provided by teachers could not satisfy the expectations of the students, even students’ loud responses are insincere. As the guide of classrooms, teachers did not explore students' inner real idea, with one-sided wishful thinking, they endeavored to lead classroom toward their pre-designed teaching processes. As a result, classrooms supposed to be living and smart became rigid mechanical operating procedures.

Although the schools provide different curriculum settings and training programs for different specialties, there are still two major problems. One is that students did not participate in the course setting and planning process. Thus, they have no concept of the roles of every courses in the subject of learning process. Second, the course instructors have in-depth understandings in the professional teaching contents, but lack of knowledge of the future development of students, thus unable to give guidance. Teachers need to focus on the college students’ personalities, thoughts, behaviors, and aim at different professional direction students to provide specific guidance, and to make teaching content of the subject more substantiated. Therefore, the college students may shift from "want me to learn" to "I want to learn".

Methods of Promoting College Students in Active Learning

Engineering Graphics is known as the language of engineering, and it is a mechanical, electrical, compulsory basic course for civil engineering and related professional students. Through the teaching process, the feedback from many non-mechanics major students reports that the purpose and significance of studying this course are not clear. And the school curriculum and faculty curriculum design process did not give answers to them. Only through the teachers’ own knowledge, various of non-standard interpretations are given, which is far from meeting the students' curiosity, not to mention to stimulate their learning initiative.

In the Engineering Graphics teaching process, in order to cultivating college students’ initiative learning ability, there mainly includes two aspects: one is soft operation means, which are to convey information about the teaching content, teaching organization, teaching management and teachers of equipment of a teaching operation behavior; another is method in hardware and operation, which is aiming at teaching tool or material and equipment movement or action.

Soft Operation Means

To Help Students to Establish a Clear Learning Objectives. Clear learning goal is the motivation of initiative learning, only to help students in voluntary, autonomous basis for the
establishment of specific learning objectives, in order to enable students to produce a positive, lasting learning motivation.

The members of teaching faculty shall work in cooperation with a due division of labor. Specialties of different majored students shall be classified and understood. Relative professional knowledge of teaching objects shall be studied. And to focus on understanding national infrastructure plans, large-scale scientific research and engineering projects, and so on. To know working experience in different majors, and to learn career planning as a mean. And combined with concluding the important role that engineering graphics plays, teaching faculty then can provide answers to get closer to practice for learning objectives.

To Establish a New Relationship between Teachers and Students. A good relationship between teachers and students is active learning based, only the elimination of hostility and indifference, unhealthy interpersonal relationship, establish harmonious feelings between teachers and students, between students and students to put the focus on learning, happily and healthy development.

At present, students have quite fairly abundant information accesses, and the amount of knowledge in some respects are more than teachers have. As teachers must constantly improve their own self-cultivation, place in the lower figure, and to learn with students together, to discuss, absorb, and promote each other. Then to make students feel no longer the audiences in the classroom, but classroom teaching participants, even collaborators, that can maximize stimulate students' initiative. The members of the teaching faculty shall prepare teaching settings together with students. To perform collaboration in links of setup, analysis, questioning and answering, and problem solving. Thus, to promote active participation of students and their initiative learning abilities.

To Use a Variety of Evaluation Forms. Proper evaluation method guarantees the active learning motivations. In teaching processes, teachers should pay attention to reduce the negative effect produced by the evaluation of students, and to avoid the damage evaluation on the students' self-esteem. Teachers shall praise more and criticize less, with fully encouraging to strengthen the confidence of students. The past simple assessment of learning outcomes shall be changed, and the evaluation of students' learning processes and learning methods shall be included. Multiple evaluation methods should be taken, such as percentile system and grade system, mutual evaluation among teachers and students, and so on. Students’ self-assessment, students’ peer assessment, teacher evaluation and mutual evaluation shall be adopted. Valueless judgment are recommended. To encourage students to participate in the evaluation process can therefore stimulate the interests and enthusiasm of active learning.

Hard Operation Means

Traditional teaching means such as the chalk and the blackboard and PPT are not enough. Some hard operating techniques shall be adopted in teaching. To learn from other universities, to apply new educational technologies, computer aided teaching methods, modernized and diversity teaching means, to promote students to actively participate in classroom teachings. In the teaching process, teaching faculty members shall actively adopt multimedia and other modern means of educational technologies. And to design reasonably in playing various means in teaching, and the use of the media should be appropriate to strengthen the intuitive, to enhance the entertainment. Information technologies shall be applied in the teaching, and to encourage students to participate in the design and production of teaching aids, and presentation software. To promote the integration of information technology and curriculum, then the teaching reform gains progresses in ways of teaching content exhibition, teacher's presentation, student learning and teacher-student interaction, etc. Therefore, the students learning can achieve the best results.

Summary

With the progress of times, college students have met some learning problems, one of which is lacking of initiative learning abilities. This paper analyzes the current students’ learning
characteristics, and try to provide some methods to help cultivating students’ initiative learning, in ways of soft and hard means.

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References