

# Discussion on the Undergraduate Tutorial System of University Based on the Innovation Club

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**ABSTRACT.** As an important means of talent training, the undergraduate tutorial system has been paid much attention and widely promoted by universities at the beginning of its entry into China. The universities as an important position in talent training. Combined with the management characteristics and cultivation methods of colleges and universities, this paper explores the tutorial system for undergraduates on the platform of innovation club. Address implementation issues, the concrete implementation methods are put forward from four aspects which include organizational structure, science, and technology competition, subject guidance and independent innovation. And proves the feasibility and effectiveness of the implementation of the undergraduate tutorial system through the results obtained.

**KEYWORDS:** Undergraduate tutorial system, Creativity, Innovation club, Guide

## 1. Introduction

The undergraduate tutorial system is an educational and teaching system in which college teachers give specific guidance to the undergraduate students' study in a manner like that of teaching postgraduate students. This system first originated from the University of Oxford [1], and has been promoted in the world due to its good effects. At present, many universities in China have implemented the undergraduate tutorial system, among which Zhejiang University, and Tongji University are the first universities to try the undergraduate tutorial system [2]. However, due to different national conditions, the implementation effect of the undergraduate tutorial system in China is not ideal. The main reason is that there are so many college students in China that it is difficult for tutors to make effective plans for general guidance, and there are no corresponding incentive measures for tutors, leading to more formal guidance [3-4]. Based on the characteristics of colleges and universities, this paper explores the new undergraduate tutorial system based on the innovation club, aiming to provide a practical method for the cultivation of social talents.

## 2. Problem of Implementation Analysis

As colleges and universities that cultivate the talents of various specialties, universities play an important role in the formation of social productivity. However, due to the different operating mechanisms and management methods of colleges and universities, most of the existing undergraduate tutorial system is not universal. At present, the main problems of the undergraduate tutorial system are as follows.

### 2.1 Student Management is Loose

The university has always advocated freedom, students mainly rely on their management, teachers generally only responsible for the class, counselors occasionally psychological counseling work, dormitory by the building management responsible. Such a management way is beneficial for students to give play to their initiative. However, due to the misunderstanding of college life among Chinese students, they tend to suddenly relax their requirements after entering the university after graduating from high school, and a few students may go into the university and completely degenerate until graduation. Under such circumstances, it is difficult for most students to rely on their consciousness and take the initiative to use college resources to improve themselves, which ultimately affects the quality of talent training in colleges and universities.

### 2.2 Teachers and Students Communicate Less

Most of the courses in the first and second years of undergraduate courses are basic courses. As the basic course teachers are burdened with heavy teaching tasks, they often take three or four shifts of students to teach in a semester, so it is difficult to spare energy to implement the undergraduate tutorial system to guide and teach students. The teachers of specialized courses mainly contact with the students in grade 3 and grade 4, but the class hours of specialized courses are relatively small, and the contact time between teachers and students is relatively short, which makes it difficult to establish effective communication.

### 2.3 Lack of Effective Teaching Channels

As the base of cultivating students' comprehensive ability, every student needs to accept the knowledge of multiple courses. The contact channel between students and teachers is usually only in-class time. Few students take the initiative to contact with teachers after class. If there is a good platform, can have a beneficial impact on both students and teachers, it is very important to deepen the relationship between teachers and students and improve the ability of students.

### 2.4 College Teachers Are Not Active

Those who participate in the club's operation are generally young teachers in universities and colleges, who have a high pursuit for professional titles and future career platform. At present, the teaching of undergraduate students costs a lot of energy, but the effect is slow, in the professional title evaluation also does not play a core role, so most college teachers will not spare much energy. However, with the revision of the talent training program and the change of the professional title evaluation system in the future, the cultivation of students' innovation ability will become more and more important for the evaluation of college teachers.

## 3. Implementation Method

As an important platform to cultivate students' innovation ability, innovation club usually sets up more than one instructor. The specific number of instructors can be determined according to the number of club members, so the instructor naturally becomes the instructor. Taking the smart ship club of our school as an example, since the number of students is maintained at about 30, it is more appropriate to set up 2 instructors. To form a good talent cultivation effect, it is necessary to establish the implementation method of the undergraduate tutorial system based on the operation model of the club, which can be mainly adopted in the following four aspects.

### 3.1 Establish the Organizational Structure

The innovation club of our college is established under the leadership of the educational administration department, with a unified club management office under which students are mainly responsible for the implementation of specific work. Due to the different functions of each club, corresponding guidance teachers and club leaders are also set up, and the organizational framework is shown in figure 1.

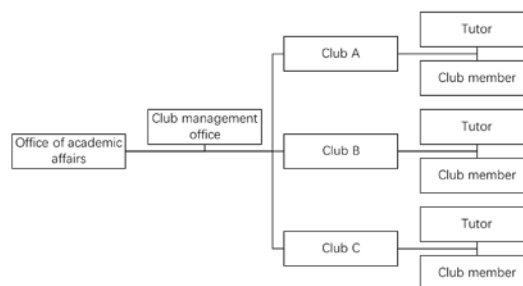


Fig.1 Organizational Framework of College Club

The organizational framework of figure 1 is very rough, which is difficult to implement when carrying out specific club activities. Therefore, the club leaders must cooperate with the instructors to make details according to the specific situation. As the instructor of the smart ship club, the author divides the club into three groups in addition to the basic management level and sets up small group leaders respectively. The specific activities are implemented by each group leader, and each layer checks the pass.

### 3.2 Competition Drive

In order to ensure the good operation of the club, the first task is to establish the club's positioning attributes and target guidance. In addition to being interesting, club activities should also be related to the vital interests of students, to attract students and keep the vitality of the club. Based on the above policy, taking the smart ship as an example, the club meeting is held at the first time when the students enter the club, to instill in the students that the club is to participate in the science and technology competition to win awards as the basic goal, and to establish the students' sense of purpose and mission. At the same time, most of the domestic competitions are sponsored by many enterprises, and the enterprises will also look for all kinds of professional talents they need in the competitions. Participating in competitions plays an important role in the employment of future students, so the enthusiasm of students to participate in the clubs will be greatly enhanced.

### 3.3 Project Support

The daily fund of the club is small, which is not enough to support many innovative ideas. The teacher's project fund can help to some extent. On the premise of conforming to the regulations, teachers can divide the project content into several micro-projects, students can participate in the part that they are interested in, and teachers can use the project funds to transform students' ideas, so as to improve students' scientific research and innovation ability. At the same time, it is impossible for students to prepare only for the competition all the year round. The project research can be used as a means to enrich the club activities and enhance the enthusiasm of students to participate in the club [5].

### 3.4 Stimulate Independent Innovation

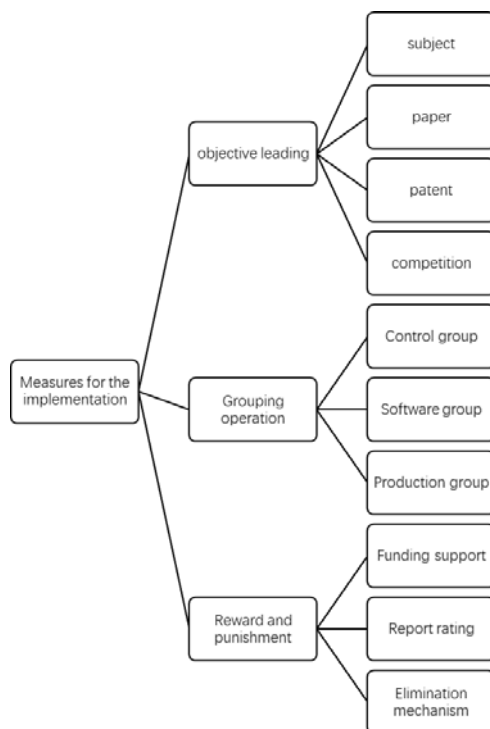


Fig.2 Tutorial System Implementation Plan Overall Figure

Through competitions and the exercise of the subject, some students will spontaneously produce some innovative ideas, for such innovative ideas must be actively encouraged, which is also the club to train students an important purpose. In order to actively promote students' independent innovation, the club can run in groups according to the interests of students, give full play to the individual strengths of students, especially some capable students, their professional qualities are no less than teachers. The results formed through students' independent innovation are a great incentive for students themselves, and also an important means to enhance students' innovation ability and self-confidence. Club grouping runs as shown in Figure 2, which allows students to quickly find goals and integrate into the collective to inspire innovation.

#### **4. Implementation Effect**

According to the above methods of implementing the club-based undergraduate tutorial system, the author, as the instructor of the club, has been implementing it for about one year. The obvious results are mainly reflected in the following three aspects.

##### **4.1 Enhanced Innovation Capability**

As a tutor, I am not only responsible for the work of the club, but also give lessons to the members of the club. Through the comparison of the classroom and the club, found that the performance of the students in the classroom is very stiff and relatively common, but not inside the club that part of the class is the very outstanding performance of students, for the problem such as handmade is very interested in, will take the initiative to study linked to classroom knowledge content, especially for model related knowledge is put forward innovative ideas, part of the problem may need to find information to solve it. Through the above methods, the students' innovation ability was greatly enhanced, and they won the special prize in the "The eighth national ocean vehicle design and production competition".

##### **4.2 Improvement of Autonomy**

Most of the students who participate in the club are not part-time cadres, do not have too much routine work, and their independent management ability is relatively poor, but the club gives students a new platform to exercise themselves. Within the club's management style is completely decided by the members, minister and deputy minister and other managers are generated by the vote, and students to participate in the club fully rely on personal interests, self-management is the club's main management way, as a result, students through the club's activities independent management ability and autonomous learning ability will get larger ascension.

##### **4.3 Deepening of the Teacher-Student Relationship**

In addition to attending classes, students in local colleges and universities seldom have direct communication with teachers. The establishment of the club has changed the above situation to some extent. The instructors of the club often participate in the club activities and organize students to participate in the games or communicate with other colleges and universities. In these processes, they have gradually established a profound relationship between teachers and students.

#### **References**

- [1] ZhiPing Du. An Analysis of the Tutorial System of Undergraduate in the University of Oxford. University Education Science, No, 06, pp. 50-53, 2006.
- [2] Alice Heim. Teaching and Learning in Higher Education[M]. Published by NPER Publishing Company Ltd, 1976 .50
- [3] MengGang Li, Wei Pu, WenRui Li. The exploration and practice of the whole multidimensional tutorial system [J]. University Education, No, 01, pp. 9-11, 2020.
- [4] DongFeng Li. The Effective Implementation of Tutorial System for Undergraduates [J]. Journal of Nanchang Hangkong University: Social Sciences, Vol. 20, No. 02, pp. 111-117, 2018.
- [5] ZhuYu Ding, Li Fan, ShengLing Zhou. On Cultivating Innovative Ability of Engineering Students Through Scientific and Technical Competition[J]. Journal of Southwest China Normal University (Natural Science Edition), Vol. 37, No. 4, pp. 205-208, 2012.