

Implementation Status and Strategy of Undergraduate Tutorial System in the Context of Academy System

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Abstract The cooperative education mode of academy system and undergraduate tutorial system is an important reform mode for cultivating top-notch innovative talents in colleges and universities. However, there is still room for improvement in the operation of tutorial system. For example, the lack of synergy in the academy system leads to problems such as insufficient understanding between teachers and students and limited guidance effect. Therefore, this study analyzes the implementation status of tutorial system, and puts forward the corresponding strategies for the existing problems.

Key words Academy system, Undergraduate tutorial system, Collaborative education

1 Introduction

Undergraduate education is a critical period for students to gradually form their world outlook, outlook on life and values. Students' growth and development in undergraduate education will significantly affect their future life path. Therefore, many countries attach great importance to undergraduate education. With the continuous expansion of students, individual attention to students becomes less and less, and it is difficult to implement the principle of teaching students in accordance with their aptitude. The problem of declining quality of personnel training has attracted widespread attention. However, with the rapid development of the national economy, the social requirements for talents are constantly improving. Therefore, against the background of popularization of higher education, how to improve the quality of undergraduate talents training has increasingly become the focus of public attention.

The academy education mode is formed on the basis of inheriting Chinese traditional college culture and Western liberal arts culture, focusing on students' dormitory in higher education. Student management is the basic condition in the process of carrying out various teaching and training work in colleges and universities, and dormitory management is an important part of student management. Dormitory is the place where college students spend the most time, and students often participate in daily life practice and certain learning activities in dormitory. The academy system is a new type of higher education management mode, with the purpose of controlling the chaos in the dormitory management of college students, starting from the perspective of higher education

management, focusing on general education, academic culture and practical education, and aiming at cultivating students' self-education habits and improving students' comprehensive quality. The main objective is to stimulate students' independent growth and self-improvement by carrying out general education and educating everyone^[1].

Tutorial system originated from Oxford University, and it is a personalized education and teaching mode and plays a very important role in talent training in Oxford University. In 1938, Zhu Kezhen, then president of Zhejiang University, introduced tutorial system into China. After the founding of the People's Republic of China, Chinese universities learned from the educational experience of the former Soviet Union and changed the credit system into the academic year system, so the tutorial system for undergraduates did not continue to be popularized. With the vigorous development of higher education, China began to vigorously promote quality education. In 2002, Peking University, Zhejiang University and other universities responded to the call of the state and retrieved the tutorial system for undergraduates. Tutorial system is an important part of the construction of academy system, and tutors are the core strength of educating people in academy. The education department attaches great importance to the role of tutorial system in educating people, and has issued a number of policies advocating the implementation of tutorial system for undergraduates. Many colleges and universities have followed suit, combining tutorial system with academy system and applying it to undergraduate education. However, there is still a certain gap between the undergraduate tutorial system implemented in China and foreign countries^[2].

Tutorial system is an important part of academy system. On the basis of managing students' study and life, academy gathers excellent tutor resources to give personalized guidance to undergraduates, making joint efforts to cultivate top-notch innovative talents. With the gradual advancement of academy system and tutorial system, improving the guidance level of undergraduate tutors

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has become an important research content. It is necessary to make an in-depth study on the system, further improve it, make it more suitable for China's national conditions, and cultivate more personalized and innovative talents.

2 The implementation status and problems of undergraduate tutorial system

As of July 2022, more than 180 colleges and universities in China have implemented the reform of college system, and gradually implemented the tutorial system for undergraduates in colleges^[3]. After more than ten years' practice and exploration, the effect of tutorial system in talent cultivation has gradually appeared. The tutor's guidance promotes students' development from professional study, scientific research, employment guidance and daily life^[4]. But it also exposes some problems and deficiencies.

2.1 Imperfect two-way selection mechanism between students and tutors under the collaborative education mode Colleges and academies have different division of labor in training objectives and responsibilities. Tutors and students belong to two different management organizations, college and academy, respectively. The daily communication between teachers and students is often based on teaching, and there is no practice and opportunity to further understand each other. This makes it more difficult to educate people cooperatively, and the communication cost between students and tutors is high. And the two-way selection mechanism is not perfect. Tutors are usually assigned directly by the educational administration department of the school, and neither tutors nor students have great right to choose independently. Moreover, there are usually many students under the guidance of tutors, which makes it difficult to take into account the individual needs of many students, and there are not many opportunities for direct communication between teachers and students.

2.2 Single way of tutor's guidance to undergraduates and insufficient guidance efforts The fundamental purpose of implementing tutorial system is to cultivate innovative talents with all-round development that meet the requirements of the times. Tutors play a key role in the teaching process. However, in the actual situation, due to busy scientific research work, lack of energy and experience, some tutors give students little academic guidance, with low guidance efficiency and poor effect. Tutors usually give priority to collective guidance such as regular group meetings and academic reports, and seldom give individual guidance. Moreover, due to the lack of tutor's guidance, students' knowledge system is not perfect enough to promote their all-round development.

2.3 Imperfect assessment and incentive mechanism of undergraduate tutorial system Many colleges and universities only pay attention to the arrangement of tutorial system, but neglect the management assessment and incentive mechanism of tutorial system, lacking supporting management system. Tutors should be responsible for guiding students for 4 years, which is long and complicated. Once there is a lack of supporting assessment and in-

centive mechanism, teachers' enthusiasm will gradually decrease, resulting in poor implementation effect.

3 Improvement measures for the implementation of undergraduate tutorial system in the context of academy system

3.1 Building a collaborative education mechanism and improving the tutorial system Academies and colleges should focus on the operation and management of tutorial system and establish a collaborative management platform. We should strengthen the discussion and consultation between colleges and academies to ensure the daily operation of tutorial system in colleges and universities. On the issue of assigning tutors, we should fully understand the wishes of teachers and students, consider the research direction of tutors and students' professional learning needs, and establish a database of mutual selection between teachers and students, so as to achieve more accurate matching and truly achieve the purpose of two-way selection. In addition, qualified colleges and universities can also refine the responsibilities of tutors.

Functionally speaking, tutors can be divided into scientific research tutors, academic tutors and life tutors. Scientific research tutors mainly provide academic guidance for students, guide them to carry out innovation and entrepreneurship projects, or guide scientific research work; academic tutors are mainly responsible for guiding academic development and guiding students to formulate and implement academic plans; life tutors focus on guiding students' ideological and political awareness, physical and mental health, helping key students, and participating in student activities, family-school interaction and so on. Colleges and universities can appoint full-time teachers as scientific research tutors and academic tutors, and counselors as life tutors to achieve the purpose of guiding students in all directions.

3.2 Enriching the forms of tutors guiding students Some students report that the communication with tutors is basically through QQ, WeChat and other network communication forms, and personalized guidance is rare, often taking the form of group meetings and group chats. Tutors should carry out rich and varied guidance activities on the basis of a general understanding of each student. Tutors should have face-to-face communication with students, and besides group communication, they should also have one-to-one communication. In addition, one or two group leaders can be selected in the group, and according to the study plan designated by the tutor, group activities such as literature reading and social investigation can be organized regularly.

Academy should also provide certain financial support for tutors, and encourage tutors to lead students to carry out rich and varied guidance work such as visits, special seminars and experience exchanges, so as to narrow the distance between teachers and students and promote students' professional development.

3.3 Improving the system and building incentive measures for undergraduate tutorial system It is necessary to pay atten-

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shui" pear had sweet fruits; however, "Aidang" pear contains more stone cells and lower sweetness. In terms of single fruit weight, the weight of "Taiwan Zaomi" pear was 100 g and the weight of "Aidang" was 160 g; the single weight of "Zaosheng Xinshui" pear was 165 g; the weight of Tianjin Yali pear was 150 g; the single weight of Cuiguan pear was 170 g.

Table 2 Characters of pear varieties

Variety	Height cm	DBH cm	Pulp color	Pulp flavor	Single fruit weight // g
"Aidang" pear	215	11	White	Average	160
"Taiwan Zaomi" pear	185	8	White	Extremely sweet	100
"Cuiguan" pear	200	14	White	Sweet	170
"Tianjin Yali" pear	200	13	White	Sweet	150
"Zaosheng Xinshui" pear	210	15	White	Sweet	165

3.3 Adaptability of pear varieties

As shown in Table 3, it is observed that five pear varieties, "Aidang" pear, "Taiwan Zao-mi" pear, "Cuiguan" pear, "Tianjin Yali" pear and "Zaosheng Xinsui" pear, grew well in Shanghai, and the plants grew healthily without freezing damage in winter; it can tolerate the high temperature of 41 °C in summer; pear trees grew well in rainy season, and there was no obvious waterlogging.

Table 3 Adaptability of pear varieties

Variety	Growth potential	Heat resistance //°C	Cold tolerance	Water resistance
"Aidang" pear	Good	41	Strong	Strong
"Taiwan Zaomi" pear	Good	41	Strong	Strong
"Cuiguan" pear	Good	41	Strong	Strong
"Tianjin Yali" pear	Good	41	Strong	Strong
"Zaosheng Xinshui" pear	Good	41	Strong	Strong

4 Discussion

There are many factors affecting the fruit yield of pear trees, and it is closely related to cultivation techniques. In terms of fertilization, rational fertilization should be achieved, that is, applying

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tion to perfecting the assessment content according to the needs in practice and making dynamic adjustments from time to time. In addition to clarifying the basic responsibilities of undergraduate tutors, we should also introduce assessment conditions such as work effectiveness and student satisfaction evaluation for corresponding scoring. The tutor assessment results are divided into "excellent, good, average and poor", and the assessment results are included in the annual assessment. In addition, the academy can regularly carry out the selection activities of outstanding undergraduate tutors, and give appropriate subsidies to outstanding undergraduate tutors.

Undergraduate tutorial system is an important part of academy system. Tutorial system can effectively promote students' all-round development. However, how to combine with the academy system for collaborative education is a problem that needs to be considered and solved. Through the implementation of collabora-

base fertilizer for one time and applying topdressing for two times. After leaves fall in winter, base fertilizer should be applied once. In addition to base fertilizer, topdressing can be applied once before flowering. Flowering needs to consume a lot of energy and nutrition, and topdressing should be applied after flowering. Generally, compound fertilizer can be used, and it has fast fertilizer efficiency and can be used for fruit setting and fruit enlarging quickly. In terms of pruning, pear trees can be pruned once after leaves fall to remove overgrown branches and tillering branches. Overdense branches should be thinned, long branches should be cut short, and the pruned tree shape should be paid attention to at the same time.

In terms of diseases and pests, pear trees have some common diseases and pests, such as aphids, pear rust, oriental fruit moth, *etc.*, which need timely prevention and control. In addition, there is the destruction caused by squirrels and birds. When pears are about to mature, they will be eaten by squirrels and birds, which need to be controlled by bird-proof nets. Otherwise, the fruit will be greatly reduced.

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tive education management, we can give full play to the important role of tutorial system in the practice of educating people in colleges and universities.

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