

# The Impact of Undergraduate Tutoring System on Tutor Research

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## Abstract

The mentoring system is an education system, which is the same as the credit system and class construction system. The undergraduate tutor system means that during the undergraduate study period, undergraduates can follow some teachers to participate in scientific research work and gain some skills. In this way, college students can not only study the knowledge in textbooks, but also participate in experiments like graduate students to pave the way for future development. However, the undergraduate mentoring system will also have a certain impact on the mentor. It will have a positive impact on the mentor in a great deal, but it will also have some negative effects.

## Keywords

Undergraduate tutoring system, scientific research, positive impact, negative impact.

## 1. Introduction

The mentoring system has a long history. As early as the 19th century, Oxford University implemented the mentoring system. Its biggest feature is the close relationship between teachers and students. Mentors not only guide their learning, but also their lives. In recent years, domestic universities have been exploring higher education other than graduate education and can also establish a new type of education and teaching system-the mentor system, to better implement the whole staff education, whole process education, and all-round education. The modern education concept better adapts to the requirements of quality education and the transformation of talent training goals. This system requires the establishment of a "learning" relationship between teachers and students, teaching students according to their aptitude, and guiding students' thinking, learning, and life according to their personality differences.

## 2. Positive Impact of Undergraduate Tutoring System on Tutor Research

### 2.1. Test Implementation

As a college teacher, a series of experiments are essential to the job. There is a lot of preparation work for a test from the beginning to the end. If it is a more complicated test, it can't be implemented by the teacher alone. The implementation of the mentor system for undergraduates will help the mentors to conduct experiments normally. Undergraduates under the name of each mentor will cooperate with teachers to conduct experiments. For example, in a field test, you need to select the test varieties, fertilizer types, and plots of the test plots, as well as field surveys, soil collection, and verification before the test. These can't be done by the tutor alone, so the implementation of the undergraduate tutoring system can help the tutor to conduct large-scale experiments normally. Undergraduates not only help teachers in experiments, but also learn something from them.

## 2.2. Data Collection and Sorting

The completion of a test is mainly to obtain test data. Data collection refers to the collection of relevant experimental data at a specific stage according to the experimental scheme. In the field experiments, soil was collected to collect soil moisture content, plant height, stem and leaf area, and some other data. If you need to collect more data, you need a lot of manual collection. Undergraduate students in the tutor system can help the tutor to collect data.

Data collation is the process of inspection, classification coding and digital coding of data collected in research activities such as surveys, observations, experiments, etc. It is the basis of statistical analysis of data. Data collation is the work process of reviewing, grouping, and summarizing a large number of raw data collected in statistical surveys in accordance with the tasks and requirements of statistical research, and making it systematic and systematic to obtain statistical data that can reflect the overall comprehensive characteristics; , The reprocessing of already organized data (including historical data) also belongs to statistical organization. After the data collection is completed, there will be a large amount of data to be collated. Undergraduates can learn some software analysis systems to help the tutors organize the data in their leisure time.

In the process of data collection and data collation, undergraduates helped teachers share a lot of workload, and they can learn how to collect experimental data and study software for data analysis, which will be rare in future studies and work. Skills.

## 2.3. Research and Education

According to the current student management system in colleges and universities, students' daily life and ideological work are performed by full-time counselors, while teaching work is performed by full-time teachers. In general, a counselor is responsible for about 200 students. It is impossible for each student to provide independent guidance on life and thought, and it is impossible to understand each student. He is only aware that a certain student may When encountering difficulties or abnormal situations, they will deliberately care about a certain student; on the other hand, full-time teachers often only teach but do not educate people, and they have an impact on students' daily life, interpersonal communication, ethics, psychological conditions, and even learning Regardless of the situation, the teacher-student relationship is indifferent, and there is no corresponding communication and exchange. After completing one or more courses, I still don't know the students, let alone the students. The undergraduate mentor system is helpful for students to understand the teacher, not to stay away from the teacher, and to improve the teacher-student relationship.

The implementation of the undergraduate mentoring system is conducive to giving play to the function of scientific research and educating people, optimizing scientific research links and procedures, improving scientific research evaluation standards, improving academic evaluation methods, promoting the application of results, and guiding teachers and students to establish the correct political direction, value orientation, and academic orientation. Cultivate the ideal pursuit of teachers and students to serve the country with sincerity, the pioneering scientific spirit, the pioneering and innovative consciousness, and the rigorous and realistic style of scientific research. Establish a science-education collaborative education mechanism that integrates teaching and research, and that integrates learning and research, strengthens the construction of a scientific and technological innovation platform, builds an interactive platform for teacher-student scientific research exchanges, and cultivates the scientific spirit and innovative consciousness of teachers and students. Promote the implementation of a scientific research and innovation team cultivation support plan, guide teachers and students to actively participate in scientific and technological innovation teams and scientific research training, and cultivate teamwork and awareness of collaboration.

Establish an academic integrity system, strengthen the integrity education of all teachers and students, and increase the punishment for academic misconduct.

### **3. Negative Impact of Undergraduate Tutoring System on Tutor Research**

#### **3.1. Weak Scientific Research Foundation**

The undergraduates' scientific research ability training methods in application-oriented universities in China include the following: classroom teaching, research, graduation thesis (design), internship, social practice, experimental training, academic reports, science and technology reading and literature review activities. But these are somewhat different from the real scientific research experiments.

University education is mainly to teach basic professional knowledge, basic theory, and basic skills. What's more, most of the undergraduates who have just graduated from the university have not participated in scientific research experiments. Therefore, the undergraduate tutor system does not have any scientific research foundation. In addition to having an up-to-date mind, doing scientific research must also have a certain scientific research ability. Scientific research ability can be divided into the ability to find problems, the ability to consult the literature, the ability to summarize and summarize, the ability to design experiments, the ability to organize implementation, the ability to express scientific research. Because undergraduates do not have any scientific research foundation, it is difficult to cultivate their scientific research capabilities. They need to take steps step by step and move slowly.

#### **3.2. Problems in the Scientific Research Process**

Scientific experiments refer to the observation and study of natural phenomena and their regular social practices under the conditions of artificial control by using certain instruments, equipment and other material means according to certain purposes. It is an important way to obtain empirical facts and test scientific hypotheses and theoretical truth.

There must be some instruments and chemicals during the test, which are likely to cause test accidents due to improper use and unfamiliarity. Because the students in the undergraduate tutor system are undergraduates who have little exposure to experiments, they are not very clear about the use of instruments and the ratio of chemical reagents, and the tutors do not pay attention to the progress of each student's experiment at any time, so It is easy to cause accidents due to mistakes. There is also an error in the operation of a test step, which leads to data errors. Because scientific research experiments are rigorous, and sometimes a small error causes the test data to fail to fit, causing the entire experiment to fail.

#### **3.3. Time Conflict**

The learning process is continuous step by step. Undergraduate courses are relatively large, and at the end of each semester, a comprehensive review of the exam is required, and some students choose to take some certificates, which results in the process of being familiar with scientific research is intermittent and not ideal. Some students arrive at the junior college to prepare for the postgraduate entrance examination, which means that there is very little time for scientific research with the instructor, which greatly delays participation in scientific research. Relatively speaking, it has an impact on the mentor's experiment.

#### **3.4. Summary of Results is not Timely**

Undergraduate students may be busy summing up the results while they have many important things to do, which leads to unreasonable time allocation. In addition, some students are not serious about learning and are not actively leading to failure to make timely payments. If the mentor is eager to use the results of the scientific research and is unable to reach the results, the progress will be delayed.

## 4. Conclusion

The undergraduate mentor system is helpful to help teachers solve certain scientific research problems, and it can also promote a more harmonious relationship between teachers and students. The implementation of the undergraduate mentoring system helps students have more opportunities to contact or participate in the mentor's scientific and technological innovation activities earlier. When students complete some of the scientific research tasks in this field under the guidance of the mentor, they rely on the classroom The knowledge learned is not enough, it will inevitably urge students to search for information with problems, combing, analyzing, and summing up with their existing knowledge in order to propose countermeasures to solve scientific research problems. Students can overcome certain negative effects as long as they are pursuing self-motivation, but for the students' private time, the tutor should understand the students. Negative effects.

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