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Responsibility of Scientific Research and Cultivating People in Colleges and Universities

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Abstract: *Institutions of higher learning shoulder the historical mission and responsibility of talent training, and scientific research and cultivation are the fundamental embodiment and basic follow of the new era of "establishing moralities and cultivating people". This article uses research methods of literature and logical analysis to systematically analyze the spirit of scientific research and cultivation in colleges and universities in the new era, and proposes to establish a firm awareness of cultivating people and fulfill responsibilities; strengthen value guidance and insist on positive indoctrination; create education the specific methods and measures to sublimate rational cognition by exerting edification effect and focusing on practical experience, hoping to provide useful reference and help.*

Keywords: *colleges and universities, scientific research and cultivation, establishing moralities and cultivating people, morality, responsibility*

1. Introduction

Scientific research and cultivation in universities is a theoretical problem that urgently needs to be faced, and it is also a practical problem that responds to social concerns. The country attaches great importance to scientific research and education. In 2015, it formally proposed “Scientific and Educational Education”, requiring the integration of science and education to focus on cultivating people. In 2016, the emphasis was again on scientific research and cultivation, requiring the establishment of a long-term mechanism for scientific research and cultivation. An important part of comprehensive cultivation is also the unshirkable responsibility of scientific research teachers [1]. In the scientific research and cultivation of colleges and universities, the introduction and cultivation of students' scientific spirit is an important aspect. This article explores the connotation and practice path of cultivating scientific spirit.

2. Spiritual interpretation from the perspective of scientific research and cultivation in colleges and universities

2.1 Explore the unknown innovative spirit

Innovation is the inexhaustible driving force for national development and the key to competition in overall national strength. Whoever bravely climbs the peak to occupy the commanding heights of innovation will be able to gain the powerful momentum to promote the development of the country's economy and seize the initiative in competition. At present, there is still a gap between my country and the world's first-class technology in many fields of science and technology. The development of science and technology is in a state of "rarely leading, few running side by side, and most following", and core technologies in key areas are still "knocked" [2]. "Only by mastering the core technology in our own hands can we truly grasp the initiative in competition and development." To catch up in the world's technological development and have a place in the forward-looking field, the innovative spirit of climbing the peak is very important.

In the process of scientific research, colleges and universities focus on cultivating students' innovative consciousness and spirit of exploring the unknown and bravely climbing the peaks. This is where scientific research and education should lie. On the one hand, the spirit of innovation requires scientific and technological workers to have advanced awareness and use keen insight and accurate judgment to predict development trends. This requires universities to cultivate students’ sense of innovation in the integration of science, education, and education, and dare to take the road that others

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have not taken. The spirit of innovation also requires scientific and technological workers to have the characteristics of a tenacious work style that is not afraid of hardships and concentrates on research. In the cultivation of science and education integration in colleges and universities, we must focus on cultivating students' tenacious style of study with great concentration, and educate students not to be afraid of difficulties in scientific research, and to strive for excellence. At the same time, we must also pay attention to cultivating students' strong will that is not afraid of failure and will become more courageous as they frustrate. In today's increasingly fierce social competition, individuals must strengthen their ability to withstand setbacks if they want to adapt and develop in a rapidly changing environment. In scientific research, frustration is the norm. This provides sufficient space and possibility for university scientific research and educators to cultivate students' tenacious will and quality.

2.2 The pragmatic spirit of rigorous scholarship

Cultivating and establishing a rigorous and realistic spirit of academic research is of great significance for regulating the entire scientific research and the academic activities and academic behaviors of individual researchers. As public intellectuals, researchers who adhere to academic ethics and integrity are also an institute for scientific research workers must bear social responsibility [3]. From this perspective, in scientific research activities, cultivating students' truth-seeking spirit of honesty, trustworthiness, and rigorous academic pursuit is not only the university’s responsibilities for cultivating people, but also an important social responsibility.

In specific practice, students are required to search for relevant documents for academic research, respect intellectual property rights when citing other people’s arguments in published papers, and truthfully mark them. In terms of project declaration, publication of scientific research results, and confirmation of the contributions of scientific research participants, etc., observe the principle of honesty and objectivity; cooperate with others honestly and rigorously; disclose research results, statistical data, etc., which must be truthful, complete and accurate [4]. At the same time, it is necessary to prevent the occurrence of academic misconduct by students, that is: all kinds of fraud, plagiarism, plagiarism, etc. are not allowed in scientific research and academic activities; it is not allowed to deliberately make false statements, fabricate data or results, and destroy original data the completeness of the experiment, tampering with experimental records and pictures, false statements in project applications, achievement declarations, job search and promotion applications, false award certificates, paper publication certificates, literature citation certificates, etc. are not allowed; infringement or damage to others is not allowed copyright, deliberately omitting to refer to others’ publications, plagiarizing others’ works, tampering with the content of others’ works; no more submissions for one manuscript when the results are published, etc. [5].

2.3 Critical spirit to dare to doubt

Dare to doubt is the beginning of progress and the driving force of technological innovation. The advancement of science and technology advances in the denial of oneself. In scientific research and cultivation, cultivating the critical spirit of students who dare to doubt and argue rationally is not only a need for the development of students' psychology and personality, but also an inevitable requirement for promoting social development and the realization of human social value. From the perspective of cultivation to promote the development of a person's main personality and multiple personality, letting the educated make independent judgments and choices is an important manifestation of cultivation to stimulate creativity.

In the development of my country's higher education, the solidified education model formed by historical inertia once made higher education enter a state of collective unconsciousness, and students' skepticism and innovative consciousness have declined. In the research and teaching activities of students, the cultivation of students' critical spirit is not only conducive to students in the era of knowledge explosion, to critically absorb the essence of knowledge, and to avoid detours on the road of academic research; it is also conducive to the development of independent thinking and rationality. Judgment ability prevents students from losing themselves in a world of diversified value orientations, diversified technical means, and deep integration of technology and society, and become a clear-headed person who does not depend on the group, does not succumb to authority, and [6]. Of course, to cultivate the critical spirit of students who dare to doubt, it is necessary to cultivate the ability of independent thinking, appropriate questioning, reasonable analysis, and prudent judgment; it also needs to argue rationally to prevent students' tendency to "criticize for the sake of criticism".

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2.4 The ethical spirit of seeking goodness and beauty

Scientific research must not only pursue truth, but also pursue goodness and beauty. The essence of goodness and beauty is about the ethics of science and technology, emphasizing the concept of social responsibility of scientific researchers and the restraint of scientific research behavior. One of the important characteristics of science and technology ethics is the unity and integration of its three values of truth, goodness and beauty. At present, in the field of scientific research, there are still scholars who are driven by interests to break through the boundaries of scientific and technological ethics and plant unknown security risks for human society. These have become important motivations for scientific research and cultivation to strengthen scientific and technological ethics education. In scientific research activities, scientific and technological ethics cultivation for college students will help strengthen the ethical responsibility of college students, promote the coordinated development of students' scientific spirit and humanistic spirit, scientific research quality and social responsibility, which is an inevitable requirement for cultivating scientific and technological innovation talents. Therefore, in the process of scientific research, teachers should always remind students to always uphold the scientific research belief of "benefiting mankind", and restrain their behaviors in a disciplined, reasonable, and rational manner without exceeding ethical boundaries.

2.5 The team spirit of sincere cooperation

At present, scientific research has become a group activity, and engaging in scientific research activities in the form of "teams" is the norm in modern scientific research. The university scientific research and cultivation, whether from the perspective of moral cultivation or intellectual education, must teach students to deal with the relationship between personal views and collective wisdom, personal behavior and teamwork, and personal interests and collective interests. From the perspective of the complex situation faced by college students' ideological and political education and the impact of multiple values, scientific research and education should put more emphasis on team awareness and collective concepts, and guide students to overcome individualistic tendencies, practice collectivist values, and find collective interests and personal interests. The joint point of personal development and the development of others, advocates the team consciousness of sincere cooperation and mutual help, promotes breakthroughs in scientific research, individual development, and team progress.

3. Exploration of the path for university teachers to lead the spirit of science

3.1 Establish a firm awareness of cultivating people and fulfill their responsibilities

Establishing the awareness of scientific research and cultivating people and strengthening the responsibility are the prerequisites for teachers to fulfill the scientific spirit. For a long time, teachers have mostly paid attention to the results of scientific research in the process of scientific research, and the assessment of teachers only emphasizes the results. Talents are often neglected, and teachers seldom have the awareness of scientific research and cultivation. Therefore, teachers must correctly understand the functions of scientific research, the relationship between scientific research and cultivation, strengthen the concept of scientific research and cultivation, lead consciously by thinking and act consciously, and actively participate in the practice of scientific research and cultivation.

In the teaching link, due to the development of scientific research in the teaching process, students have to complete a series of research tasks, such as scientific experiments at the undergraduate level, graduation internships, graduation design, social surveys, bachelor thesis, and course papers and degrees at the graduate level. Scientific research activities such as papers; in the second classroom session of students, it is normal for college students and postgraduates to carry out amateur scientific research activities [7]. They carry out various academic club activities for the purposes of scientific exploration and discovery, scientific and technological innovation and invention, and scientific and technological promotion and application, and participate in scientific research activities such as the "Challenge Cup" national college student scientific and technological invention competition; in addition, scientific culture, scientific atmosphere, science frontier lectures, etc., are an environment for educating people. These links are all carried out under the auspices and guidance of teachers. They are the stage for teachers to research and educate people, and they have the task and responsibility of educating students' scientific spirit. Teachers should not only guide students to produce results, but also seize this favorable opportunity to carry out education activities and cultivate their scientific spirit and style.

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3.2 Strengthen value guidance and insist on positive inculcation

In the process of scientific research, teachers must speak out, strengthen value guidance for students, and carry out explicit education in instillation. This is the basis of scientific research and education. Lenin clearly pointed out in the book "What to do": "It is impossible for workers to have the consciousness of social democracy. This kind of consciousness can only be instilled from the outside." Xi emphasized at the school's ideological and political theory teacher seminar: promote thinking the reform and innovation of political theory courses must continuously enhance the ideological, theoretical, affinity, and pertinence of ideological and political courses... adhere to the unity of indoctrination and enlightenment, and the unity of explicit education and implicit education. Only when educators "instill" the value system, ideological connotation, and ethics required by the scientific spirit into the educated, can the educated have a sense of identity with educational information and educational behavior, and then "internalize" it into conscious behavior. The educational value of scientific spirit can be realized. In the process of guiding students in scientific research, teachers should make use of their own prestige among students and rich scientific research experience, as well as the convenient conditions for close contact with students and the opportunity to meet frequently, through academic reports, team meetings and individual talks, etc., without losing the opportunity provide students with positive education in the spirit of science [8].

3.3 Build a cultivating team and exert influence

The modern group scientific research is a common form of scientific research organization, so the scientific research team has become an important carrier of scientific research and cultivation. Building a good educating team, cultivating a good team's scientific spirit, and giving play to the environmental influence is an important support for scientific research and cultivation. From the perspective of environmental education, the scientific research team is the environment for students to receive education, and the environment plays an important role in the formation of students' outlook on life, values and world outlook. As Mr. Tu Youguang's famous "Kimchi Theory" said, the taste of cabbage and radish depends on the taste of the kimchi soup. The educational environment is like kimchi soup, which influences and determines the mental outlook and behavior style of the students who are immersed in it [9]. Therefore, teachers should pay attention to cultivating a good research team culture, so that students in the research team headed by teachers, through the initial stage of herding and infection among members, the demonstration and imitation of the growth stage, and then the cooperation and conflict handling in the mature stage to achieve the purpose of self-education. Let students in the team rely on their own cognitive model, knowledge experience, emotions and emotions to perceive, accept, and imitate, and finally internalize what they feel to form a good scientific ethics and academic norms.

3.4 Focus on practical experience and sublimate rational cognition

Teachers implant students in scientific research practice, so that students can recognize the laws and norms of scientific research during the process of participating in scientific research, and experience the scientific attitude, scientific style and scientific methods they should be. This is an important way for scientific research and cultivation. In practice, teachers should arrange for students to systematically participate in scientific research activities and guide students to carry out scientific research throughout the process, promptly enlighten and guide, and sublimate students' rational cognition. For example, by arranging students to participate in the application of scientific research projects and undertake scientific research tasks, the students will be brought to the forefront of the subject, understand the status quo of the development of the subject, improve their scientific research literacy, accumulate scientific research experience, lay a scientific research foundation, and cultivate their awareness and courage to target the world's scientific and technological frontiers. The spirit of innovation that dare to be the first; by guiding students to feel the difficulties and difficulties of scientific research, cultivate students' fighting spirit not to fear difficulties and concentrate on research; through the setbacks and failures in the process of scientific research, students are not afraid of failure and become more courageous strong will [10]. At the same time, in the scientific research practice, through practical training, students are cultivated to be honest and trustworthy, and the spirit of rigorous scholarship; the critical spirit of daring to doubt and rational contention; and the ethical spirit of seeking goodness and beauty, discipline and degree.

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4. Conclusion

Scientific research and cultivating people is an important way and effective method for establishing moralities and cultivating people. It is not only an inevitable requirement of the development of the new era, but also a concrete manifestation. Teachers integrate moral education in the scientific research process, conduct ideological and moral education on students through scientific research activities, guide students to establish a correct outlook on the world, life and values, and strengthen students' scientific research ideals and science. Ethics, scientific spirit, scientific research methods education, and the improvement of students' political, ideological, cultural, and psychological qualities are the historical mission and responsibility of universities, and they are also important signs and distinctive features that distinguish universities from other scientific research institutes.

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