



# Exploration of Integrating Scientist Spirit into College Students' Ideal and Belief Construction — Based on a Questionnaire Survey of a Normal College in Hunan

**Lilin Liu**

Xiangzhong Normal College for Preschool Education, Shaoyang 422000, Hunan, China

DOI: 10.32629/jher.v3i1.634

**Abstract:** To strengthen college students' ideal and belief construction is one of the important ways to improve the quality of higher education, which can guide college students to set up correct values. Scientist spirit should be integrated into the teaching of ideological and political courses in colleges and universities. Through all-round promotion based on family education, guided by ideological and political education in colleges and supported by social education, the ideal and belief consciousness of college students can be effectively improved. And college students' profound patriotism and strong sense of social responsibility can be cultivated.

**Keywords:** education for university students, scientist spirit, ideal and belief construction

President Xi Jinping made the remarks at the 20th Conference of Academicians of the Chinese Academy of Sciences, the 15th Conference of Academicians of the Chinese Academy of Engineering and the 10th National Congress of the China Association for Science and Technology that: "In the new era, it is more necessary to carry forward the patriotic spirit of taking the destiny of the country and the nation as its own responsibility, and to continue to carry forward the patriotic scientist spirits." The scientist spirit is the characteristic of the new era of socialism with Chinese characteristics and the strategic task of the ideal and belief construction of college students. Whether young college students possess the scientist spirit in the new era is not only related to the growth and development of students, but also related to the smooth realization of the great rejuvenation of the Chinese nation. Therefore, to integrate the scientist spirit into the ideological and political courses in colleges and universities and to guide college students to firmly believe in socialism and communism, and to maintain deep feelings of family and country and strong sense of social responsibility, are not only related to the personal growth and development of college students, but also related to the smooth realization of the great rejuvenation of the Chinese nation.

## 1. The guiding connotation of scientist spirit to college students

The construction of ideal and conviction of college students can be achieved based on the guidance of the scientist spirits for the construction of ideal and faith of college students. The scientist spirits includes patriotism, innovation and reform, persistent exploration, rational spirit, dedication, truth-seeking and pragmatic spirit, empirical spirit, practical spirit and cooperative spirit. It is mainly reflected in patriotism, innovation and dedication.

### 1.1 Patriotism is the first essential of the scientist spirit

Patriotism refers to an individual or collective positive and supportive attitude towards the motherland, revealing the dependence of individuals on the motherland, which is the unity of people's sense of belonging, identity, dignity and honor to the country, nation and culture. The construction of ideals and beliefs of college students is primarily based on the theory of patriotism.

### 1.2 Innovative spirit is the basic characteristic of scientist spirit

The spirit of innovation is the inexhaustible driving force for the development of a country and a nation, and it is also the quality that a modern person, especially a college student, should possess. How to cultivate the innovative spirit of college students is a new challenge for educators. It is necessary to cultivate the innovative consciousness, innovative thinking and innovative skills of college students at the same time as cultivating their innovative emotion and good personality quality.

### 1.3 Dedication is the inner self-restraint of scientist spirit

The spirit of dedication is a concentrated manifestation of social responsibility. Many Chinese scientists are national heroes who "do earth-shaking things with anonymity". China has completed the scientific and technological development

road that took western developed countries hundreds of years in a few decades, which is done due to the selfless dedication of Chinese scientific and technological workers. Dedication is an important source to train college students to establish a correct world outlook, outlook on life and values.

## **2. Survey and research design**

### **2.1 Questions by survey and research**

With the rapid development of China and the changes of the international situation and the world environment in the new era, the belief worship of college students is undergoing earth-shaking changes, and the proportion of the scientist spirits in the belief worship of college students is gradually weakened. This survey is conducted through questionnaire survey with analysis by current ideological and political education, which is expected to solve the following problems: (1) college students' understanding and recognition of "scientist spirit"; (2) the dilemma of "scientist spirit" in the college students' ideal and belief construction; (3) to explore the long-term mechanism of "scientist spirit" on the college students' ideal and belief construction.

### **2.2 Survey subjects**

The subject of this study takes the three-year and five-year full-time students in a normal college in Hunan Province as the objects, among which the three-year students are the candidates for the unified entrance examination, and the five-year students are the students who are appointed to graduate from junior middle school.

### **2.3 Collection of survey data**

Before the data collection of this questionnaire survey, the purpose of collection was explained to the respondents, and the data collection was completed on the premise of the respondents' voluntary participation. A total of 1058 valid questionnaires were collected, and the detailed data are shown in Table 1.

## **3. Analysis of survey results**

### **3.1 College students' understanding and recognition of "scientist spirit"**

In the eighth item of the questionnaire, only 637 students said they knew the "scientist spirit", accounting for 63.6% of the respondents. Among them, 553 students knew the "scientist spirit" through classes, 87 through family education, 33 through traditional media and new media, and none through popular science activities. In item 9 of the questionnaire, there were 5 contemporary scientists and 5 stars. The survey mainly investigated the respondents' recognition of scientists and stars. The overall understanding ratio of the five contemporary scientists was only 24.9%, among which 88.6 were about Yuan Longping, the father of rice, such a high proportion is mainly originated from the father of rice fall short video platform hot recommended. Only two people, or less than 0.2 percent, knew General Kim il-nam. According to the survey, 89.7 percent of the respondents knew the five stars, and 78 percent of them knew them at least. The ninth item of the questionnaire mainly investigated the respondents' understanding of "scientist spirit", in which the cognition of innovative spirit reached 100%, the cognition ratio of patriotism, fact-seeking spirit and cooperative spirit was between 70% and 80%, the cognition of dedication and education spirit did not exceed 60%, and the cognition of education spirit was only 31.7%. The comparison of data shows that college students' understanding and recognition of scientists is far lower than that of stars, so it is extremely urgent to educate and guide college students' ideals and beliefs.

### **3.2 The dilemma of "scientist spirit" in the college students' ideal and belief construction**

The 13th item of the questionnaire mainly investigated the degree of college students' recognition of social influence. 341 scientists accounted for 32.2%, 703 celebrities for 66.5%, and 14 unknown students accounted for 1.3%. In the 12th survey on the treatment of scientists, 561 chose salary as the most attractive one, accounting for 53%, followed by scientific achievements (336), 31.8%, other 35 (9%), and growth experiences (66). In the seventh survey on ideal jobs, 448 students chose teaching as their ideal post, accounting for 42.3%. As a normal school, this survey accounted for a low proportion, but among 185 five-year junior middle school graduates, 173 students chose teachers, accounting for 93.5%. Among the 435 people who chose stars as their ideal career, 41.1%, only 59 people chose scientists as their ideal career, 5.6%, among which 8 came from urban areas and 51 from rural areas. For the 14th individual mission, 83.5% chose individuals and families, while 16.5 chose the country and society.

The results of the above surveys show that most college students are not clear about the importance of ideal and belief construction and are immersed in self-amusement in the era of bombarding with entertainment information, especially under

the indoctrination of the thought of high paychecks of stars live streaming with high yield, luxury life misguided by short video after elaborating packaging, billions of tax evasion and the goals of college students to strive for economic benefits. At present, some college students show weak mainstream consciousness, their socialist ideals and beliefs are not firm enough with the lack of the spirit of hard struggle.

### **3.3 The dilemma of college students' ideal and belief construction by integrating the the "scientist spirit" into teaching of ideological and political courses**

Item 15-16 of the questionnaire survey mainly investigated what college students should do to promote the scientist spirits and their willingness to engage in scientific research. Among the options on how to promote the "scientist spirit" among college students, 86.1% of the students agreed that the teaching of ideological and political courses should be incorporated into the scientist spirits, 76% of the students are interested in organizing extracurricular activities. 68.2% of the students agreed that building a scientist brand was an important way to promote the scientist spirits. In the era of prevalence of short videos dominate, 63.7% of students accepted short videos to promote excellent film and television works and exhibition activities, and other recognition was only below 30%. In the 16th survey, if given the opportunity, 243 people would like to engage in scientific research, accounting for 23%, while 815 people would not, accounting for 77%.

The above survey reflects several difficulties of integrating the scientist spirit into the ideological and political course teaching in colleges and universities in the construction of ideals and beliefs of college students. First, the way of integrating the scientist spirit into the ideological and political course teaching in colleges and universities is characterized with singleness with the lack of innovation. Second, in the economy-oriented era, college students are not willing to accept the scientist spirits. Third, the enthusiasm of college students show low enthusiasm to engage in scientific research.

## **4. Countermeasures and suggestions for construction of ideals and convictions among college students by "scientist spirit"**

College students are the human resources for the development of the socialist society with Chinese characteristics. The construction of ideals and beliefs is an important way to guide college students to set up correct outlook on life and values. Integrating the scientist spirit into the ideal and faith construction of college students can be made by construction of a complete long-term mechanism for the ideal and faith construction of college students, which is dominated by the scientist spirit and carried by school, family and society.

### **4.1 Innovate and carry forward scientist spirit and disseminating thought carrier**

In today's world, profound changes unseen in a century are accelerating, the international environment is complex, scientific and technological innovation has become the main battlefield of international strategic game. It is particularly important to promote the scientist spirits at present because of the frequent occurrence of "bottleneck" events in China's shortage of core technologies and the unprecedented fierce competition around the commanding heights of science and technology. At present, it is particularly important to promote the scientist spirits. The way for college students to contact and understand the scientist spirits is mainly by ideological and political teaching in colleges and universities, and its form is single. Therefore, it is necessary to enrich, innovate and carry forward the scientist spirits, so that the scientist spirits deeply rooted in the hearts of the people. The main ways are as follows. The first is to set up a good concept of family education for the whole people and firmly establish the consciousness of spreading scientist spirit from family education. Second, to enrich science popularization activities themed on the scientist spirits, and produce a number of high-quality films, TV works and short videos to publicize the scientist spirits. Third, to build a number of outstanding brand of scientists, brand cohesion to promote the scientist spirits.

### **4.2 Promote the adoption of scientific spirit in the ideological and political teaching reform in colleges and universities**

At present, ideological and political courses in colleges and universities is characterized with the singleness in teaching, which proves inadequate innovation in the sense of substitution and attraction, leading to college students' low attention to and participation in ideological and political courses. In the era of rapid development of computer and new media technology, ideological and political courses are taught simply for the purpose of lecturing, which can no longer keep pace with the times. Therefore, it is urgent to promote the teaching reform of ideological and political course in colleges and universities at present, especially the teaching reform of ideological and political course integrating scientist spirit. The main ways are as follows: First, to enrich the content of ideological and political education in colleges and universities, and to make full use of computer and new media technology, and to conduct innovative reform in teaching means and methods, as a result,

to stimulate teacher-student interaction and classroom linkage, and promote college students' interest in ideological and political education. Second, the ideological and political class is moved out of the classroom, related extracurricular teaching activities are organized, and exhibition activities with the theme of scientist spirit are organized to guide college students to shape correct values through various forms of ideological and political teaching.

### **4.3 Construct the ideal and belief construction mechanism of college students dominated by the scientist spirit**

The essence of the construction of college students' ideal faith is to guide students to set up the correct outlook on life, values, thinking view. The essence of the scientist spirit is the embodiment of ideological values. How to integrate the two and construct a set of ideal and belief construction mechanism for contemporary college students dominated by the scientist spirit with the school and society as carriers is a complex and systematic project. At the same time, it runs through the whole process of admission, teaching, propaganda, supervision, reward, punishment and evaluation of scientists' spirit. Therefore, the government education department should formulate a legal and binding and feasible system in accordance with laws and policies. The construction of ideal and faith of college students led by the scientist spirits should be comprehensively conducted with the guidance of ideological and political education in colleges and universities with basis on family education and all-round support by social education to encourage college students to consciously practice socialist core values, establish deep feelings of patriotism and a strong sense of social responsibility.

## **5. Conclusion**

High level self-improvement and self-reliance in science and technology has become an important goal of our current struggle, college students should bear the brunt and be resolute in socialism, communism ideal faith. College students should cultivate the innovative spirit of pioneering with truth-seeking spirit of pursuing truth and rigorous scholarship. Colleges and universities should guide students to cultivate the students' devotion to research with indifference to fame and wealth. It is necessary to educate and guide students with the scientist spirits in ideological and political teaching in colleges and universities, so that they can develop strong patriotism and strong sense of social responsibility, and strive for the realization of a modern socialist country.

## **References**

---

- [1] Qiu Jingwen.(2021).The practical path of integrating scientist spirit into ideological and political course teaching in colleges and universities. *The Party Building and Ideological Education in Schools*. (22), 64-66. doi: 10.19865/j.cnki.xxdj.2021.22.019.
- [2] Liang Nan.(2021). Importance and path of ideological and political teaching reform in colleges and universities in the new era. *Public Relations World*. (15), 118-119.
- [3] Zhai Ronghui.(2021). Carrying forward the scientist spirits and promoting ideological and political education in colleges and universities. *China Higher Education*. (05), 48-50.
- [4] Xi Jinping (2020-09-12). Speech at the symposium of scientists. *People's Daily*, 002.
- [5] Xu Jie.(2020). Discussion on the reform of ideological and political teaching in college curriculum under the background of new media. *The Farmers Consultant*. (15), 209.

**Table 1. Questionnaire survey results of the research on construction of the ideal and belief of college students by scientist spirit**

| Items                    | Number (person) | Proportion (%) | Items  | Number (person) | Proportion (%) | Items   | Number (person) | Proportion (%) |
|--------------------------|-----------------|----------------|--|-----------------|----------------|---|-----------------|----------------|
| 1. Gender                |                 |                | 8. Do you know the scientist spirit  |                 |                | The collaborative spirit  | 765             | 72.3           |
| Male                     | 465             | 44             | Yes  | 673             | 63.6           | The educational spirit  | 336             | 31.7           |
| Female                   | 593             | 56             | No   | 385             | 36.4           | 12. What are you interested in about the scientist community                    |                 |                |
| 2. Length of schooling   |                 |                | 9. Who do you know about these people? (multiple choice)                           |                 |                | scientific achievement  | 336             | 31.8           |
| Five years               | 185             | 17.5           | Yuan Longping  | 937             | 88.6           | Development experience  | 66              | 6.2            |
| Three years              | 873             | 82.5           | Nan Rendong  | 102             | 9.6            | Salary  | 561             | 53             |
| 3. Age                   |                 |                | Yang Zhenyu  | 72              | 6.8            | others  | 95              | 9              |
| 00s                      | 922             | 87.1           | Tu Youyou  | 207             | 19.5           | 13. Who have greater social influence Scientists or stars                       |                 |                |
| 90s                      | 134             | 12.8           | Jin Yinan  | 2               | 0.1            | Scientists  | 341             | 32.2           |
| others                   | 2               | 0.1            | Wang Junkai  | 1009            | 95.4           | stars   | 703             | 66.5           |
| 4. City or village       |                 |                | Yi Yangqianxi  | 1021            | 96.5           | unclear   | 14              | 1.3            |
| city                     | 621             | 58.6           | Cai Xukun  | 943             | 89.1           | 14. At what level should personal mission be positioned?                        |                 |                |
| village                  | 437             | 41.3           | Dilireba   | 947             | 89.5           | Personal  | 409             | 38.7           |
| 5. The only child or not |                 |                | Guan Xiaotong  | 826             | 78             | Family  | 474             | 44.8           |
| Yes                      | 312             | 29.5           | 10. Do you know where the scientist approach comes from                            |                 |                | The whole country   | 175             | 16.5           |
| No                       | 746             | 70.5           | classroom  | 553             | 82.2           | 15. University students carry forward the "Scientist Spirit" (multiple choices) |                 |                |
| 6. Student cadre o       |                 |                | Family   | 87              | 12.9           | Integration of ideological and political classes                                | 911             | 86.1           |
| Yes                      | 75              | 7.1            | Activities for Popular Science   | 0               | 0              | Organize related extracurricular activities                                     | 803             | 76             |
| No                       | 983             | 92.9           | Traditional media (TV broadcasting magazines, etc.)                                | 21              | 3.1            | Quality film and television works   | 267             | 25.2           |
| 7. Ideal career          |                 |                | New media (website official account, Weibo, etc.)                                  | 12              | 1.8            | Excellent short video   | 674             | 63.7           |
| scientists               | 59              | 5.6            | others   | 0               | 0              | exhibition activity   | 199             | 18.8           |
| teachers                 | 448             | 42.3           | 11. Which of the following are included in the scientist spirit (multiple choices) |                 |                | Developing the scientist brand  | 722             | 68.2           |
| stars                    | 435             | 41.1           | patriotism   | 827             | 78.1           | others  | 10              | 9              |
| others                   | 116             | 11             | spirit of innovation   | 1058            | 100            | 16. Would you like to engage in scientific research if given the chance         |                 |                |
|                          |                 |                | matter-of-fact attitude  | 833             | 78.7           | Willing   | 243             | 23             |
|                          |                 |                | Dedication spirit  | 602             | 56.9           | Unwilling   | 815             | 77             |