

The Problems, Reasons, and Countermeasures of Cultivating Scientific Spiritual Literacy in Universities

Aiqin Wang

Taishan University, Taian, Shandong

ABSTRACT

This article combines the problems of insufficient attention to the cultivation of students' scientific spiritual literacy, lack of a sound evaluation mechanism for scientific spiritual literacy, emphasis on traditional knowledge teaching, and neglect of scientific spiritual literacy cultivation, some college students are eager for quick success and do not pay attention to their own innovation ability cultivation. From the perspectives of universities, students and teachers, in-depth analysis was conducted on the reasons for the existing problems. And proposed relevant countermeasures for cultivating scientific spiritual literacy in universities, including creating a good atmosphere for cultivating scientific spiritual literacy, encouraging students to participate in various subject competitions, establishing a multi-dimensional student performance evaluation system, and leveraging the guidance role of teachers.

KEYWORDS

Universities; Scientific Spiritual Literacy; Cultivation

1 Problems in the Cultivation of Scientific Spiritual Literacy in Universities

The researcher analyzed the current situation of scientific spiritual literacy cultivation in universities in Shandong Province from different perspectives. Researcher has found that there are mainly the following problems in the cultivation of scientific spiritual literacy in universities in Shandong Province:

1.1 Insufficient emphasis on cultivating students' scientific spiritual literacy in universities

The cultivation of scientific spiritual literacy is a macro issue that involves extremely complex links. Only by receiving sufficient attention from university managers can functional departments of universities formulate specific policies and measures to promote the smooth implementation of this macro issue. Only in this way can the responsibilities of all participants be clarified, the enthusiasm for participation of the secondary colleges be fully mobilized, and the cultivation of scientific spiritual literacy be truly a top priority for the school to deploy. Due to insufficient cognitive abilities, lack of personal qualities, and unclear positioning for the future development of universities, some current university managers have not fully realized the importance of cultivating scientific spiritual literacy for talent construction, competitiveness enhancement, and long-term development of universities. In terms of cultivating scientific spiritual literacy, whether it is from financial investment or from the construction of teaching staff; there are serious deficiencies in both the guidance and

supervision of teachers and the subjective efforts of students themselves.

1.2 Lack of a sound evaluation mechanism for scientific spiritual literacy

A good evaluation mechanism is not only conducive to accurately understanding the current situation of scientific spiritual literacy cultivation in universities, but also provides the correct direction for the cultivation of scientific spiritual literacy, making the goals and measures more clear and appropriate when universities carry out scientific spiritual literacy cultivation work. However, many universities currently lack a sound mechanism for cultivating scientific spiritual literacy. Some university administrators have insufficient understanding of the connotation of scientific spiritual literacy and do not fully recognize the important role of scientific evaluation mechanisms in enhancing students' enthusiasm for participating in the cultivation of scientific spiritual literacy and fundamentally improving various problems in the cultivation of scientific spiritual literacy. In specific practice, some universities do not know from which aspects to comprehensively evaluate students' scientific spiritual literacy level. The evaluation process is simple, the evaluation participants are single, and the evaluation effect is poor.

1.3 Emphasizing traditional knowledge teaching and neglecting the cultivation of scientific spiritual literacy

Many university teachers have inaccurate positioning of their roles during the teaching process, and have not effectively distinguished themselves from the responsibilities borne by primary and secondary school teachers. Unlike primary and secondary school students, college students have fully developed the ability to self-study. With the correct guidance of teachers, they can fully exert their strong subjective initiative, fully realize their own value in the ocean of knowledge, and exercise their innovation and entrepreneurship abilities in this process. However, in professional course teaching, especially in some liberal arts majors, teachers mainly focus on classroom teaching, and students lack opportunities for practical training in enterprises. Students' awareness of active participation is not strong. Simple teaching of basic knowledge reduces students' opportunities to access cutting-edge professional knowledge.

1.4 Some college students are eager for quick success and do not pay attention to cultivating their own innovation ability

Only by fully utilizing students' innovation and cultivating their ability to actively explore and solve problems can they fundamentally improve their overall scientific spiritual literacy and provide strong human support for economic and social development. However, some college students currently have problems such as insufficient awareness of hardship and perseverance, weak innovation awareness, and low subjective initiative. They are restless and eager for success, unable to settle down and seriously study the hot and difficult issues in their professional field. They complain or even give up when they encounter some difficulties in their studies. They are unwilling to admit shortcomings and shortcomings, and rarely look for reasons from their own perspective when problems arise. The problems faced by college students themselves to some extent hinder the smooth transformation and orderly implementation of measures to cultivate scientific spiritual literacy.

2 Analysis of the Reasons for the Problems in the Cultivation of Scientific Spiritual

Literacy in Universities

2.1 Reasons at the university level

From the perspective of the entire country, the overall requirements for cultivating scientific spiritual literacy are consistent, but why do different universities have significant differences in their specific implementation? Some college students generally have a high level of scientific spiritual literacy, and they have fully demonstrated the good spiritual outlook and high comprehensive quality level of contemporary college students in participating in high-level competitions and activities. The main reason for this is still the differences at the university level. Some universities have insufficient awareness of talent cultivation and a weak sense of initiative. In talent cultivation, there is still a tendency to prioritize scores over skills; Emphasizing classroom knowledge teaching and neglecting the cultivation of innovative abilities; Emphasize theoretical knowledge infusion and overlook practical ability application. The management of some universities has insufficient understanding of the importance of cultivating scientific spiritual literacy. There are still many imperfections in the allocation of teaching staff, introduction of high-quality courses, laboratory construction, and expansion of training bases.

2.2 Reasons at the students level

External factors such as policies and measures formulated by schools and the support and guidance of teachers can only truly play a role through the efforts of students themselves. Only when students truly realize the importance of scientific spiritual literacy in their ideological consciousness, realize that their future achievements and social value are closely related to their scientific spiritual literacy, can they actively cooperate with the implementation of various policies and measures of the school, and cooperate with teachers to implement important tasks in all aspects of teaching. Currently, most students are able to actively learn scientific and cultural knowledge, focusing on improving their overall quality. However, it is undeniable that there are still some students who do not have high expectations for themselves, lack motivation and enterprising spirit, do not actively participate in class, and do not pay attention to enriching their practical abilities outside of class. Due to personal reasons, students have a serious lack of scientific and spiritual literacy, which is not suitable for the needs of high-level and comprehensive talents in social development.

2.3 Reasons at the teachers level

The role of teachers runs through the entire process of cultivating scientific spiritual literacy, and teachers serve as a bridge between school policies and individual students. If this bridge role is played well, it can ensure consistency among schools, teachers, and students, and be implemented in a planned, step-by-step, and directional manner in accordance with the relevant national requirements for cultivating scientific spiritual literacy. If the bridge role of teachers is not played well and teachers cannot bear the heavy responsibility, then even a good policy is meaningless. Some teachers lack scientific spiritual literacy and cannot guide students to think deeply in the classroom. They simply impart textbook knowledge and do not attach importance to cultivating students' exploration and practical abilities and innovative thinking abilities. The evaluation method for students is single, only using the exam scores as the only reference for evaluating students' final grades. The insufficient role of teachers seriously affects the cultivation effect of students' scientific spiritual literacy.

3 Solutions to the Cultivation of Scientific Spiritual Literacy in Universities

3.1 Creating a favorable atmosphere for cultivating scientific spiritual literacy

To improve the quality of cultivating scientific spiritual literacy in universities, it is first necessary to create a good atmosphere for cultivating scientific spiritual literacy from the entire social level, forming a good atmosphere where everyone values science, respects science, advocates knowledge, and pursues innovation. Driven by this favorable atmosphere, universities, as important bases for talent cultivation and carriers for cultivating innovative thinking and entrepreneurial abilities, can better play their role. In a good atmosphere, the management of universities can elevate the cultivation of students' scientific spiritual literacy to a very important position, and formulate good policies and measures to increase the cultivation of scientific spiritual literacy.

3.2 Encourage students to participate in various subject competitions

Generally, various majors in universities have subject competitions recognized by official departments or relevant associations. These subject competitions have been carefully organized by the organizers, with a focus on examining the comprehensive qualities of students. Some subject competitions have a large scale, involve a wide range of subjects, and have a high level of student participation, which has gained widespread recognition in the education industry. In some high-level subject competitions, there are high requirements for students' teamwork ability, innovation ability, and application ability. In the process of preparing for subject competitions, students gradually mature some innovative ideas, exercise their thinking abilities, and improve their overall quality. This type of discipline competition training can enable students to better cope with some setbacks that may arise in their future learning and life processes. After work, they can also better adapt to the demand for innovative talents in society, innovate work methods, and improve work efficiency.

3.3 Establishing a multi-dimensional student performance evaluation system

The top priority of current universities is to continuously optimize the evaluation system for students, and incorporate the assessment of students' scientific and spiritual literacy into the evaluation system. Only in this way can students change their previous simple pursuit of exam results and passively accept knowledge, and become more clear about their direction of effort, learn to think actively, innovate actively, and have the courage to break the constraints of habitual thinking. The setting of final exam questions should mainly focus on subjective questions that fully reflect students' innovative thinking ability, with a focus on examining whether students can use the knowledge they have learned to comprehensively analyze current socio-economic phenomena. Academic paper publication, subject competition awards, and patent inventions and creations should be included in the performance evaluation system.

3.4 Give full play to the guiding role of teachers

Teachers play an important guiding role in cultivating students' scientific spirit literacy. Whether in classroom teaching or in after-school tutoring, teachers should place the cultivation of scientific spirit in an important position. In classroom teaching, teachers should guide students to analyze problems in depth and provide them with opportunities to fully utilize their personal insights. Under the correct guidance of the teacher, students have clearly defined the direction of their efforts, no longer focusing solely on mastering classroom knowledge, but rather on applying what they have learned. Students have become more aware that the important task during their

university years is to comprehensively improve their comprehensive qualities, laying a solid foundation for better adapting to job requirements after work.

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About the author

Aiqin Wang(1982-02), Female, Taishan University, Associate Professor, Research field: human resource management and International Trade.

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