

Research on the Strategies of University Innovative Cultural Construction in China

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Abstract: In the context of constructing an innovative country, university innovative culture is particularly important in cultivating innovative talents, promoting the construction of the national innovative system, and enhancing the national independent innovative ability. University innovative culture is a kind of thinking mode with innovation as its value orientation. It helps to promote the germination of university innovative awareness, eliminate the obstacles in its innovative activities and protect its continuous development. Starting from mentality, system and physical aspects, this paper designs the strategies of university innovative cultural construction, and makes practical exploration for realizing the goal of cultivating university innovative talents.

Innovative culture is not only a necessary key resource in national innovative system, but also an important part of national competitiveness. In the era when the primitive innovation has become the core of the sustainable innovative ability of science and technology, and talents have become the important strategic resources for economic and social development, constructing a good cultural environment conducive to innovation has become the only way for a nation to win the era of innovation. The scientific and technological circles and even the whole society should fully realize the urgency and importance of university innovative cultural construction and actively participate in it.

1. Improving the Mentality Cultural System and Enhancing the Value Guidance of University Innovative Cultural Construction

The mentality cultural system is the collective innovative awareness, thinking activities and psychological state accumulated in the long-term practice of universities [1]. It is a focused display of vitality, creativity and cohesion reflected in teaching, scientific research and management activities of a university. It reflects the school-running concept, value orientation, unique personality and cultural accumulation of the university in its running process.

1.1 Creating a Cultural Atmosphere to Improve Scientific Research Literacy by Cultivating Academic Tolerance

Firstly, respect and tolerance for talents are the cultural foundation for an innovative university. Knowledge innovation is a kind of hard intellectual labor, with characteristics of independence, creativity and criticism [2]. Only by respecting talents and following the basic laws of intellectual labor can we expect knowledge creators to achieve creative achievements. Secondly, we must have a broad mind and tolerance. What makes a university big is because of not only its scale, number of people and disciplines, but also its openness to different knowledge, academic ideas, values and its holders. It should also emphasize the tolerance for students, otherwise how to cultivate talents with innovative spirits and abilities. This is true of all world-renowned schools. Though there are many reasons why Harvard University is famous for cultivating outstanding talents, its emphasis on creating a culture in which students dare to question and criticize, and cultivating students' spirit of questioning and criticizing, has contributed a lot. Finally, we should advocate the scientific thoughts of pursuing truth and tolerating failure. The essence of science and technology is the pursuit of truth. Marxism regards freedom as the recognition of necessity and the transformation of the world[3].

For university teachers, "academic freedom is a working condition. The reason why they enjoy academic freedom is based on a belief. Namely, such freedom is necessary for scholars to teach and explore the truth they see, and this is also because the atmosphere of academic freedom is the most effective environment for research. "[4] With the deepening of the reform and development of higher education, people are increasingly aware of the importance of academic freedom in promoting the university development.

1.2 Creating a Cultural Atmosphere to Produce Innovative Inventions by Improving the Awareness of Scientific and Technological Innovation

Firstly, we should return to the university essence and create a mission culture of "pursuing science and advocating innovation". The core mission of universities is to spread and develop science and make due contributions to human beings, nations and society based on this. Universities should make scholars and students' content with and love knowledge, so as to cultivate innovative talents who are willing to do hard and meticulous basic research. Secondly, we should return to the university spirit and create a university competitive culture. The purpose of creating an innovative culture in universities is to attract and possess a group of talents with creation, innovative abilities and entrepreneurial willingness, and strive to cultivate a batch of such talents to make innovative contributions to creation and entrepreneurship. Thirdly, we should create an innovative environment and cultivate students' awareness of scientific research. Universities should educate students in science, technology and scientific research, bring them to the forefront of discipline development, understand the latest achievements and scientific and technological trends, enable them to master the basic methods of scientific research, inspire them to struggle, explore and innovate, and try to create an innovative environment. Finally, we should establish a fair competitive mechanism [5]. We must encourage young people to dare to explore, to propose new ideas, and to face failure. Innovation can never have a 100% success, and scientific exploration never has an absolute loser. We should guide the scientific and technological circles to recognize and accept such an iron law.

1.3 Creating a Cultural Atmosphere to Gather Scientific Research by Cultivating Team Awareness

Firstly, we should establish a "people-oriented" scientific concept. In the current innovative activities, the creative significance and decisive role of talents are more obvious. Secondly, we need establish an open scientific research mechanism and a loose scientific research environment quickly. Establishing a more open scientific and cultural environment is extremely important for the development of science and technology. In the future, solving the problem of opening up will be very important in the construction of national innovative system. We must work hard to reduce or eliminate various unnecessary administrative barriers, implement an appointment system in scientific research institutions, and establish a just, fair and transparent selection mechanism. Thirdly, we need get rid of the impetuous habit of being eager for quick success and instant benefits. Hawking, the master of science, quoted from Shakespeare's Hamlet in his The Universe in a Nutshell: "Even if I am locked in a nutshell, I still think I am the king of infinite space." [6] This is the ideal state of the supremacy of scientific exploration, and the kingdom of freedom that all scientists in the world dream of. Finally, we need focus on the three aspects of team awareness training. Division of labor: Its principle for innovative team leaders should be that the specific work and corresponding responsibilities of each team member must be reasonably and clearly divided. Cooperation: The key to cooperation is to organically integrate the specific work of each member to achieve goals. Supervision: The supervision here is not only the project itself, but also the consideration of whether each member has fulfilled his or her responsibilities and the corresponding rewards and punishments. For an innovative team with a common goal, a high degree of responsibility, clear rewards and punishments, and a high degree of teamwork, its projects will undoubtedly be successful.

2. Improving the System Cultural System and Enhancing the Knowledge Productivity of University Innovative Cultural Construction

System culture system is a system of rules and cultural psychological adjustment to adjust the relationship between internal and external, subject and object in universities. It is the foundation of university construction, the guarantee of talents training, and the guarantee of promoting the coordinated development of university environmental culture and spiritual culture and transforming them into efficient and orderly actions. It is also the guarantee of university spiritual culture, which is between the mentality and the physical cultural systems.

2.1 Establishing a Perfect Education Mode by Focusing on the Innovative Effect of Interdisciplinary

It is necessary to follow laws of disciplines, break "segmentation", and promote interdisciplinary and integration. The development of disciplines has their own rules, and the interpenetration, inter-crossing and integration of different disciplines has become an important trend of discipline development and the main way for scientific innovation. To meet the needs of discipline development, we must follow its laws and break segmentation while studying university innovative cultural construction. The purpose of interdisciplinarity and integration is to realize the construction of a large span of disciplines and cultivate new disciplines, which will contribute to the construction of university innovative culture. We can recruit interdisciplinary and cross-major postgraduates, implement interdisciplinary postgraduate training programs, encourage tutors to recruit interdisciplinary students, encourage interdisciplinary scientific research, combine production, university and research to develop interdisciplinary, and establish interdisciplinary centers or research institutes to specialize in interdisciplinary research, etc. All of these methods can cultivate students' creativity. Comprehensive universities have the advantage of multiple disciplines. They can form new growth points of disciplines through interdisciplinary integration, create a discipline ecology good for innovation, cultivate innovative talents and achievements, and form a campus cultural atmosphere dominated by innovative culture.

2.2 Establishing a Scientific Educational Evaluation System by Improving the Incentive Mechanism of Talents Training

The evaluation system of science and technology is an important guarantee to promote the innovation of scientific and technological management, optimize its resources allocation, and enhance the innovative ability. We must take stimulating the vitality of scientific research as the foundation and improve the quality of research as the guidance, improve the evaluation system, improve the evaluation standards, and standardize the evaluation methods. The scientific educational evaluation system is one of the important contents of university innovative cultural construction. In the specific operation, we should establish a personalized, diversified and economic evaluation system instead of a standard, conforming and non-economic one, so as to enhance students' innovative motivation and promote the large-scale innovative talents training. According to the actual situation of universities, it is urgent to establish a diversified educational evaluation system with human development as the goal and the innovative quality training as the guidance. In Feng Ping's book *On Evaluation*, "The so-called rationality of evaluation means that, in the highest sense, it suits human development and social progress... When a behavior guided by an evaluation conforms to the goal of human pursuit of progress and plays a positive role in human development, then it is reasonable. Otherwise, it is unreasonable. "[7] To build a culture of innovation and train innovative talents, universities must implement comprehensive reforms and innovations from examination methods, content and forms, so that evaluation can truly help the formation and development of students' innovative ability. We should change from simply examining the memory, directional understanding, and application of theoretical knowledge to assessing the ability to capture and process knowledge and innovate knowledge. We should guide students to combine theory and practice flexibly, and establish and improve an examination system which is coordinated with innovative education and helpful to the growth and development of innovative talents.

2.3 Establishing an Academic Educational Management System by Focusing on the Construction of Innovative Team

The trend of interdisciplinary and comprehensive integration of contemporary scientific and technological innovation is more and more obvious [8]. It requires joint efforts between teams of different disciplines to form a collaborative innovative system full of collective and collaborative spirits. In the educational management innovation, culture is a factor that has to be considered. The educational management innovation without cultural perspective is not comprehensive and feasible. To reform the university management mode, we should establish a flexible management system based on people, which is reflected in two aspects. Firstly, the management system for teachers should reflect the spirit of service and humanistic care. It should be based on the principle of stimulating the innovation of academic staff and fully respect academic activities. Meanwhile, it should coordinate the university administrative power and academic rights, actively mobilize the academic staff to participate in the management, and improve their participation in the decision-making of major events, so as to improve the scientificity and effectiveness of decision-making. Secondly, for students, we should implement flexible management and cultivate their personality. The management system formulated must adapt to the features of the growth and development needs of college students, create an atmosphere, respect their personality, and emphasize the enthusiasm of learning knowledge. For different people and things, we must adopt different methods to stimulate and mobilize enthusiasm and creativity to the greatest extent.

3. Improving the Physical Cultural System and Enhancing the Scientific Research Innovative Support for the University Innovative Cultural Construction

The physical cultural system refers to the one which is composed of the physical conditions of university education and teaching and can be felt by people. It is the physical basis and external form of university culture. It exists in the form of campus environment, architectural layout, cultural landscape, disciplines, and teaching staff, teaching facilities and means and other tangible things. Specifically, it includes the system, mechanism, policies and regulations of schools. It has the role of guiding, restraining and shaping the thinking, words and deeds, and life habits of teachers and students.

3.1 Optimizing Scientific and Technological Innovative Environment by Increasing Infrastructure Construction

To improve infrastructure construction, architecture is a vivid textbook for spreading civilization and cultivating morality; the distinctive campus pavilions, gardens and lawns are the second platform to cultivate pillars; Campus sculptures and cultural scenic spots, which contain the essence of history, are the demonstration and continuation of university tradition and spirit. Through these, the function of environmental education is reflected. Thus, constructing innovative environment and improving cultural taste have become an important link in the construction of university innovative culture. To meet the spiritual and cultural needs of college students, we should organize rich and colorful cultural activities and social practice and form a number of cultural brands. The enrichment of spiritual and cultural life drives the benign interaction of teaching and learning styles, and promotes the coordinated development of students' ideological and moral qualities, scientific and cultural qualities and health qualities. Meanwhile, it is necessary to make full use of the network platform to optimize the soft environment. The close contact between new media and college students is increasingly changing their learning, life, behavior, way of thinking and values. New media are testing the wisdom of their ideological and political educators [9]. In this case, we should continue to develop new medium, occupy new media, grasp new positions, try new methods, emphasize new skills, cultivate new network management, train new network people, and constantly develop new ways to develop university innovative cultural construction with new media.

3.2 Encouraging the Accumulation of Innovative Spirit by Emphasizing the Design of Cultural Symbols

The university concept reflects the value orientation, cultural tradition and unique personality

accumulated in its running. We must continue to innovate ideas around the fundamental tasks and contemporary missions of universities and deepen the spiritual connotation of university spirit, learning style and teaching style combined with its own tradition. It is necessary to integrate the rational spirit of seeking truth, criticism and innovation advocated by scientific research and humanistic care like freedom, democracy, encouragement and tolerance contained in humanistic spirit into the university innovative cultural construction, so that innovative activities have inexhaustible spiritual and cultural force. The first is to advocate the scientific spirit of pursuing truth and rigorous scholarship. Scientific spirit is the primary basis of innovation. It is necessary to establish the values of pursuing truth and innovation, insist on the principle of seeking truth and being practical, encourage academic contention, and create a good academic environment and atmosphere of freedom, openness, harmony and progress; The second is to cultivate a spirit of tolerance that dares to take risks and tolerates failure. Scientific research and innovative activities are highly risky and unpredictable. Therefore, we should encourage free exploration, respect for initiative, promote the spirit of being a pioneer, break down all ideas that hinder innovation, allow and tolerate failure, and create a loose and inclusive culture. The third is to consciously enhance the innovative cultural construction and create the campus culture of innovation and entrepreneurship. The innovative and entrepreneurial education is the basic content of campus culture and innovative cultural construction, and also the key link to train high-quality innovative and top-notch talents.

3.3 Building a Diversified Platform for Scientific and Technological Innovation by Supporting the Construction of Activity Carriers

Implementing innovative and entrepreneurial education can export high-quality innovative talents for human development. The most direct reflection of university innovative culture that leads human development is to export high-quality innovative talents. These talents not only have the knowledge and skills urgently needed by social development, but also carry the innovative spirit and scientific concept of university innovative cultural cultivation. Besides, the latter has a far-reaching impact on social culture. University innovative and entrepreneurial education should focus on innovative talents training, emphasize "training students' innovative thinking, quality and personality, and focus on improving their ability to find, propose and solve problems"[10]. Thus, university education should change from being professional-oriented to student-oriented to create a multi-dimensional learning environment and a broader space for them to study autonomously. It should provide students with more practical opportunities for innovation and entrepreneurship, strengthen independent innovation, encourage original innovative academic research, and build an innovative environment of academic freedom and failure tolerance. Moreover, it is also necessary to stimulate the motivation and active factors of university teachers and students to actively cultivate high-level academic achievements.

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