Exploration on the Path of Practical Teaching in Higher Education Institutions to Fulfil Social Responsibility

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Abstract: Serving the society has become one of the important duties of modern universities. Besides the fundamental functions of talent development and scientific research, higher education institutions should also fulfil their corresponding social responsibilities. Practical teaching plays an important role in realizing social responsibility. It mainly realizes social responsibility indirectly by cultivating high-quality applied talents and promoting scientific research as well as directly by providing scientific and technological services, social welfare, cultural services, etc. In addition, implementing practical teaching to achieve social responsibility also requires strong funding security, organizational security, and policy security.
Keywords: path implementation; practical teaching; social responsibility

0 Introduction

Throughout the history of university development, universities have shifted themselves from the seclusion state of "ivory tower" to the heart of society by fostering talents needed by society, solving social problems and promoting social progress. In other words, the universities evolve along with a certain degree of social responsibility, and the social responsibilities achieved by modern universities have been well recognized and accepted without any doubt. Derek Bok, former president of Harvard University, once called for: "If a university wants to fully understand its true role and purpose in today's society, then it must examine its social responsibility[1]."

Practical teaching is an important part of the teaching system of higher education institutions. It is an important supplement and expansion of theoretical teaching. It is an important path to promote university students' understanding of knowledge, development of skills, improvement of ability, and cultivation of students' emotional attitudes and values. It is a booster for teachers and students to carry out scientific research. It is an important channel to connect with social reality and fulfil social services. For practical teaching which holds such a paramount position, what kind of social responsibility should it achieve, how to achieve social responsibility, and how to guarantee the realization of social responsibility are all issues worthy of deep thinking and research, and they are also the focus of this paper.

1 Social responsibility for the practical teaching of higher education institutions

Social responsibility refers to the responsibility borne by an organization to the society. It expresses that the organization should make aggressive contributions to social development and assume corresponding social obligations while seeking to maximize its own value[2]. In recent years, scholars have engaged in intense discussions around "social responsibility of universities." Wang Yusheng believes that the social responsibility of modern universities must not only walk out of the "ivory tower" but also go beyond the "ivory tower." They should fully assume the universities' education and academic responsibilities, international responsibility, as well as the responsibility of serving

the society and leading the society forward[3]. Gong Fang believes that the main social responsibility of the universities is high-level personnel training, scientific discovery, and knowledge innovation; the universities' service to the society is a reasonable extension of university teaching and research activities[4]. Derek Bock, a well-known American higher education expert, once pointed out that universities should assume social responsibility through high-quality personnel training, scientific research, and social services[5]. Scholars agree that the best contribution of universities to society is talent cultivation, scientific research, and social services.

1.1 Practice teaching indirectly fulfils social responsibility by cultivating high-quality applied talents

High-quality applied talents must not only acquire solid humanistic qualities and theoretical foundation, good professional ethics, and strong social adaptability but also be equipped with exquisite professional skills and able to apply them to social production, construction, management, service, and other first-line posts[6]. Practical teaching is precisely the cultivation of various applied talents by various practical activities and systematic professional skill training.

1.2 Practical teaching indirectly fulfils social responsibility by promoting scientific research

Roger Bacon, the father of modern science, believes that experimental science is a science, a method, and means of scientific research. It is the key to open the door to all knowledge. All science must be based on experience and supplemented by observation and experimentation[7]. Throughout the history of scientific development, many scientific research results have been obtained through experiments and practical means. Practical teaching, with the help of laboratories, internship training foundation, experimental teaching demonstration centers, scientific research platforms, etc., provides a guidance to teachers and students to discover new problems, explore new ideas, and obtain new results in the process of experimenting, practicing, training, and investigation. These obtained benefits can subsequently be put into application to solve social problems or directly translate into social productivity.

1.3 Practice teaching directly fulfilling social responsibility by providing social services

Modern universities, under the driving force of social needs and internal interests, actively serve the society in various forms. The form and content of social services have become important indicators for the featured development of higher education institutions. An important part of practical teaching is to look out on society and provide technologies, public welfare, cultural services, etc., to the society as a direct way of fulfilling of social responsibility.

2 Analysis of the path of practical teaching in higher education institutions to fulfil social responsibility

How does practical teaching achieve social responsibility? The realization path of talent cultivation, scientific research, and social services was discussed separately as follows:

2.1 Analysis of the path of practical teaching to train high-quality applied talents

Today, the scientific and technological revolution is changing with each passing day, and the world is changing rapidly. The talents cultivated by higher education institutions should attain the quality of lifelong learning, i.e., the scientific spirit of being good at thinking, dare to explore, and courageous in criticizing and questioning. They should also be capable in analyzing and solving problems, good at communication and cooperation, and should possess a strong sense of citizenship and social responsibility. Based on the above requirements, practical teaching can be implemented from the aspects of teaching content, methods, organisational forms teaching processes, etc.

2.1.1 Adjust the content of practical teaching and cultivate talents in various aspects

First, the content of practical teaching should reduce the proportion of verification-based experiments and increase the proportion of open, design-based, multidisciplinary, innovative, and inquiry-based experiments.
The students should be allowed to design their own experimental programs according to experimental conditions and be given full autonomy to complete the experiments from the preparation of experiments, selection of materials, experimental time, experimental

methods, task division among members to data processing and analysis, etc.

Second, explore new channels and enrich the content of the cocurricular activities. Higher education institutions can adopt rich, colorful, and eclectic activities that are conducive to the quality development of university students according to their own level of education management, type of education, discipline construction, professional characteristics, and talent training objectives, such as carrying out various activities (literary arts and sports) and various competitions (public speaking, debate, design, etc.) and organizing various extracurricular scientific and technological activities (production of scientific and technological works, patent inventions, professional skills appraisal, etc.).

Third, practical teaching should strengthen the content of university students' innovation and entrepreneurship education. Statement from the general office of the state council [2015] No. 36 requires higher education institutions to establish a sound innovation and entrepreneurship system and strengthen entrepreneurial practice[8].

Practical teaching can use projects and activities as guidance to combine teaching with practice and make full use of university science parks, university students' innovation and entrepreneurship foundation, technology incubators, and university-enterprise cooperation foundation, to simulate all aspects of entrepreneurial practice activities, targeting in the cultivation of students''awareness and ability toward innovation and entrepreneurship.

2.1.2 Improve practical teaching methods and train talents in multiple modes

Practical teaching is different from theoretical teaching. It does not require teachers to systematically follow the concept, content, and principle of a certain subject, from simple to complex, from shallow to deep, and gradually imparting knowledge in order. Students should actively participate, implement, and complete various practical teaching activities under the guidance of teachers so that students can increase their knowledge, master methods, improve their abilities, and develop their wisdom in their actions. Therefore, practical teaching should be established based on the characteristics of various disciplines and professionals and actively develop a variety of interactive teaching methods such as experiential, heuristic, seminar-based, case-based,

guided, inquiry-based, full simulation-based, and project-driven teaching[9].

2.1.3 Enrich the organizational form of practical teaching and cultivate talents through multiple channels

During the teaching process, besides using basic teaching organizational forms such as class teaching system, individualized teaching, and group teaching, practical teaching can also adopt other forms of teaching such as open teaching, self-managing teaching, collaborative teaching, or implement joint training between institutions, enterprise, and research institutes. Students can freely choose experimental projects, design experimental content and experimental procedures according to their needs, as well as cooperate with teachers and students to complete experimental projects through negotiation and discussion, or even learn and practice from placement in the industries related to their study discipline through institution-enterprise cooperation, which is helpful for them to understand the latest developments in the field and to deepen the perceptual understanding of the actual working environment and work process.

2.1.4 Strengthen the action-reflection of the practice teaching process and cultivate students' reflective and critical thinking

Donald Schon, an American contemporary educator, philosopher, and advocate of the "reflective teaching" idea, divides professional practice into two major levels: One is the level of "high-hard ground," which requires only known theories and techniques to solve problems, and another is the level of "swampy lowlands," it is the "uncertain zone" in practice. Problems in this state cannot be solved with existing knowledge and technology. They can only be realized through the constant reflection by the practitioners themselves, that is, through the ability to solve problems effectively generated in the course of action[10].

Schon's thinking on practical teaching is that – practical teaching should provide "uncertain zones" in students' thinking, leave room for technical problems, and leave space for the experimental process, allowing students to think and act actively and positively. Therefore, when the teacher sets various experimental tasks, the process and results of the experiment should be made in a way that is not completely predictable and not completely unpredictable. It should be an experimental (practical) problem that students can solve after continuous

exploration and thinking. This will enhance students' thinking, creativity, and actionability.

2.2 Analysis of the path of practical teaching to promote scientific research and fulfil social responsibility

To fulfil social responsibility, scientific research must implement strategic transformation, change the traditional, isolated, ivory-style of pure academic research, and turn to society and market-oriented research, to make direct contributions to society. Practical teaching can encourage the expansion of scientific research among teachers and students and promote the transformation, promotion, and application of scientific research results from various aspects.

2.2.1 Professional practice activities promote scientific research and fulfil social responsibility

Practical teaching expands scientific research through experiments, training, practice, and internships. Teachers and students of science and engineering can obtain scientific research results through experiments or use the off-campus training foundation to penetrate the front line of enterprise production, explore scientific research topics, overcome technical problems, and contribute to local economic development. In the practical teaching of humanities and social sciences such as history and philosophy, teachers and students can engage in professional internships, training, and social surveys, go extensively into the off-campus practice teaching foundation, in government departments, enterprises, communities, rural areas, and other places to understand and investigate the status quo of the society, and carry out relevant research on this, as well as to provide intellectual support for local political, economic, and cultural development and enhance social service capabilities.

2.2.2 Research results obtained from graduation design and cocurricular activities must be used to serve the community

Practical teaching projects such as course design, graduation thesis (design), cocurricular research competitions, science and technology extracurricular activities, university students' innovation, and entrepreneurship competitions must meet the professional training objectives, while at the same time targeting on regional social and economic development, production industrial structure upgrading and high-tech transformation, urban multidisciplinary reform,

and resource development and utilization, etc. and conduct relevant investigation and research, so that the scientific research results and key technologies that are subsequently produced can have certain guiding significance for social and economic construction, technology development, and cultural development.

2.2.3 Conduct social investigation, inspection, and other practical teaching activities to carry out scientific research to fulfil social responsibility

The great mentor, Comrade Mao Zedong, a proletarian revolutionary, once said: "There is no right to speak without investigation." The practical teaching of each major can make full use of social practice activities, to think, investigate, and inspect social phenomena and problems. On this basis, carry out analysis, argumentation, induction, discovery of laws, and conclusions which can provide policies and recommendations for the society.

2.3 Analysis of the path of practical teaching directly serving the society

Practice teaching is one of the most important and convenient ways for higher education institutions to understand society, study society, and serve the society. For example, it provides services to the society through practical activities such as technological services, public services, and cultural services.

2.3.1 Practical teaching provides technological services

First, teachers and students use the laboratory, training foundation, and enterprises to establish a cooperative community, contract the tasks of certain technologies and product innovations in the enterprise, conduct indepth research and exploration, and draw research results[11]; Second, through social practice activities, teachers and students regularly go into enterprises, communities, and rural areas to solve their commonly encountered technical problems, provide them with scientific and technological service activities, and provide skills training services for the society to improve the technical literacy and employability of social members.

2.3.2 Practical teaching provides social welfare services

For university students who are about to enter the society, their world outlook, outlook on life, and values

are at the stage of formation. It is, especially, important to cultivate their sense of citizenship and social responsibility. Through social practice activities, higher education institutions arrange students to visit nursing homes, pay attention to left-behind children, and join youth volunteer services, environmental protection, and hope projects so that students can understand the national conditions, appreciate the society, and care for the society. It is also possible to carry out the "three rural areas" activities in the summer semester, to disseminate new cultures, promote new technologies, and publicize health knowledge to the rural areas, which boost the development of culture, science and technology, and health in the rural areas.

2.3.3 Practice teaching develops cultural services

Higher education institutions can provide cultural services to the society through practical teaching activities. For example, conduct cultural activities in the countryside, entering the community, and carrying out cultural guidance and training; use advanced advertising platforms, leaflets or WeChat, Weibo and other online platforms to disseminate advanced culture and traditional culture; excavate, inspect, collect, organize, protect and promote regional cultural, intangible cultural heritage, historical and cultural heritage and other service activities in the region; cooperate with cultural related government-linked institutions to build a practical teaching foundation, jointly promote the development and design of cultural products; encourage the mutual development of corporate and university culture.

3 The security mechanism of practical teaching in higher education institutions to fulfil social responsibility

The smooth development of practical teaching is conducive to the realization of social responsibility in higher education institutions. However, to better achieve social responsibility through practical teaching, it is also inseparable from financial security, organizational security, and policy security.

3.1 Financial security

To achieve social responsibility in a better way through practical teaching, talent cultivation, scientific research, and society service all require a large amount of funding. Experiments, practical teaching, and scientific

research require relevant teaching equipment and platforms; students' graduation internships, professional trainings and graduation thesis, students' innovation and entrepreneurship projects, small-scale production of science and technology, and small inventions from cocurricular activities are all inseparable from financial support. Therefore, funding security is the basis for the smooth development of practical teaching. Higher education institutions need to establish various forms of input security mechanisms, proactively absorb social resources, fight for financial support from governments, society, businesses, and alumni, and also adopt the operation mode of project bidding, solve the other party's technical problems, and get funding to achieve mutual benefit and win-win results.

3.2 Organizational security

The development and implementation of practical teaching are systematic projects involving a wide range of issues. It is directly related to the distribution and organization of people, finances, and materials. The coordination of government departments, practical teaching foundation, and institution is needed to carry out practical teaching effectively. Therefore, a sound organizational security operation mechanism is a necessary prerequisite for the smooth implementation of practical teaching.

3.3 Policy security

Practice teaching foundation and employment units are the main support and evaluation body of practical teaching. Practical teaching cannot be implemented successfully without their supports, and consequently, it is not conducive to the realization of its social responsibility[12]. The government plays the role of administrator of the society. Therefore, the establishment of practical teaching foundation and the sustainable development of institution-enterprise cooperation requires the support of various government departments. The government can formulate incentive policies, such as corresponding financial services, tax reduction, financial subsidies, equipment, and information resources sharing and legal protection to assist practical teaching effectively[13]. If necessary, it may formulate and issue policy documents and force relevant government agencies and enterprises to build an internship foundation for higher education institutions.

In summary, higher education institutions as the main boy of practical teaching must make full use of the

advantages of practical teaching and strive to improve the quality of talent training, promote scientific research, and directly and indirectly provide services to the community. However, in the process of realizing social responsibility, practical teaching should also be aware of the limitation of social responsibility. It should not take all of the social needs as its own responsibility, but to serve the society on the basis of adhering to the law of talent cultivation and adhering to the academic principles of the university, and promoting public interest.

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