

The enlightenment of western university construction to college education construction in China

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Abstract. There are many factors involved in improving the quality of university education. The most important factor restricting the quality of university education is specialty construction. The university's specialty is the part that is most closely related to the labor market. Strengthening specialty construction, especially the construction of characteristic specialties is undoubtedly an important measure. A stone from another mountain can conquer a jade. The history and present situation of characteristic subject development and specialty construction in western universities enlighten us a lot. Under the realistic background of our country, the government and universities should learn from the concept of specialty management in western countries, and make joint efforts to strengthen the construction of characteristic specialty.

Keywords: university education; specialty construction; government and universities.

1. Introduction

Improving the quality of university education is the internal need of university self-construction. In a certain sense, quality culture is consciously becoming an action. Turn this action into practical measures and the internal power for the university, it is necessary to promote the reform, realize the sharing of high quality resources, improve the overall quality of the teachers; the students' practical ability and innovative spirit; optimize the talent training mode, and reform the teaching content and methods.[1] 1. History and current situation of characteristic discipline development and specialty construction in Western universities The traditional American pragmatic philosophy has a great influence on the development of American university disciplines. According to their own characteristics and starting from the actual needs of university survival and development, each university has formed its own advantageous disciplines, and focuses on maintaining the advantages of disciplines, and constantly developing in innovation.

2. History and current situation of characteristic discipline development and specialty construction in Western universities

2.1. The characteristics of American universities in developing characteristic disciplines

2.1.1 Taking the department as the basic unit is conducive to promoting the rise and sustainable development of characteristic disciplines

Taking the department as the basic unit is of great significance to the healthy development of the university discipline. American universities generally take the department as the basic academic unit, which has the characteristics of great flexibility and can produce new ideas and ideas. Take the development of the Department of Sociology at the University of Chicago, for example, for a glimpse of the whole leopard. The University of Chicago was founded in 1892, and soon developed into a leading university in both teaching and research. Among them, the system of university academic units based on departments is of great significance to the development of the discipline. The development of sociology itself can be credited to the Department of Sociology at the University of Chicago, and the efforts of the development of sociology into a mature discipline.[2] The first president of the University of Chicago, Harper (William Rainey Harper), plays an important role in the development of sociology. He regarded the university as an important core of advanced learning,

believing that the task of the university was to improve the society by providing knowledge and solving social problems. This purpose, which emphasizes both basic research and advanced training, prompted the establishment of a department of sociology at the University of Chicago. President Harper actively provided financial support for the development of the department of sociology, and introduced four famous scholars of that time, including Small (Albion Small), to the development of the new discipline of sociology. Small not only devoted himself to teaching sociology, but more importantly, he worked to create an institutional institution and atmosphere that encouraged other scholars to further explore the field of sociology. The University of Chicago has been providing steady financial support for the development of sociology. In 1895, it supported the Department of Sociology to establish the first national sociological journal, the American Journal of Sociology (The America Journal of Sociology), which for a long time became the journal of the American Sociological Society. The Department of Sociology at the University of Chicago has become a banner in the field of American sociology, becoming the most successful department of sociology in the United States and the world. The Department of Sociology at the University of Chicago has trained a large number of famous sociologists, forming the famous "Chicago School" in the field of sociology. Sociology has always been one of the strongest disciplines in the school. In 2013, the University of Chicago Graduate School of Sociology ranked fifth in the list.[3]

2.1.2 A coordination mechanism for the formation and development of disciplines and majors based on the benign interaction between universities, government, civil organizations and the market.

American universities have the autonomy of running schools and academic autonomy, and all universities have the autonomy of setting up disciplines and majors. Generally speaking, the power of discipline setting plays an important role in the setting of departments and colleges at the grass-roots level. According to the enrollment and the employment status of the graduates, the research results and the market demand of various disciplines, the department (college) proposes the plan for the setting and adjustment of the disciplines and majors, which is discussed by the academic evaluation committee of each university, and the academic evaluation committee according to the strategic rules of the overall development of the university. The decision will be made on the current situation of the discipline development of the university, and will finally be submitted to the vice president in charge of academic affairs. Generally speaking, the department (college) plays a fundamental role in the process of discipline development. The federal government of the United States is not directly involved in the management of colleges and universities. The main responsibility of the US Department of Education is to publish national information on education, provide research reports on education, and guide the development of education throughout the country. Since 1980, the Federal Department of Education has published the Catalogue of Classification of Instructional Programs (CIP). It provides information services for the adjustment of disciplines and majors, which indirectly affects the setting and layout of disciplines and majors across the country. The federal government funds scientific research in universities and supports the development of key disciplines through the federal scientific research funding policy. At the state level, the state governors propose the proposals and submit them to the state higher education committees, which directly affects the appointment of teachers and the expansion or reduction of enrollment in public universities. Each state is responsible for the management of its own university education, and on the basis of researching the national disciplines and disciplines, it directly influences the adjustment of disciplines and majors of public universities. In the United States, various university education accreditation institutions play the role of a buffer between the government and the market in university management. Similarly, certification institutions play an impact in the setting of university disciplines through certification activities. There are 19 legal institutional certification bodies (Institutional Accrediting) in the United States, responsible for the certification of 7,000 institutions of higher learning nationwide. There are also 66 professional certification of the disciplines. The institution (Specialized and Professional Accrediting) is responsible for the certification of the discipline and professional education qualification.

The market plays an important regulating role in the field of American university education. The United States has formed a relatively perfect university education market and a fully competitive job market, and the market plays an important role in the setting of university disciplines, which is reflected in enrollment and employment. Students can choose their majors according to their interests and tutors. They affects the survival and development of the university in the country. The competitive job market for graduates is also the test of the quality and reputation of the university. The employment status of graduates directly affects the development of university disciplines and professional Settings. This situation encourages universities to pay attention to market changes and adjust their subject development and professional Settings in time. The Federal Bureau of Labor Statistics publishes such information every two years, providing a good reference for university discipline development and specialty setting. States work to link college education with industry and the labor market, forecasting employment trends and the number of new jobs and career categories over the next decade.

2.1.3 To form the discipline and major development direction oriented by the university strategic planning.

Strategic planning is crucial to the development of the university. The main purpose of university strategic planning is to link the future of the university with the foreseeable environmental changes, and propose solutions to the problems that may occur in the future external environment in advance, so as to gain a favorable position in the continuous competition of resource. Most of the American universities define their discipline development strategy in their strategic planning.[4] Such as the university of Wisconsin-Madison in the university of strategic planning, as a first-class research university, outstanding research work is the strategic focus of the university, and clearly put forward in order to promote the development of interdisciplinary, the university should be in genetics, biology, neuroscience and biological photonics made strategic progress, promote university global leading position in the field of life sciences, hire interdisciplinary teachers and researchers, promote the research of emerging fields.

2.1.4 A coordination mechanism for the formation and development of disciplines and majors based on the benign interaction between universities, government, civil organizations and the market.

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2.2. The basic characteristics of the characteristic specialty construction of British universities

2.2.1 British universities and their majors have very distinctive features.

Disciplines and majors, discipline construction and major construction are major practical problems in the field of university education research. They are different from each other and related to each other. Accurate discipline positioning and reasonable specialty setting are the guarantee for the healthy and rapid development of colleges and universities. Strictly speaking, British universities have no concept of "major", but the concept of disciplines and departments. Disciplines and departments can be set according to the needs of the society to form their own characteristics. The enrollment, training and scientific research of majors are closely combined with the needs of the society. In addition, there are many universities based on professional characteristics, such as London Business School, which is famous for business, St Andrews University, which is good at basic disciplines, and Brunel University, which is good at engineering and art. Some majors are closely associated with the government and industry sectors, such as Cranfield University, the former Royal Air Force Airport, Aviation Flight Academy and Cranfield college of science and technology. There

are also some majors that rely on geographical advantages, such as the University of Aberdeen adjacent to the North Sea oil field.

2.2.2 The discipline and specialty construction of British universities presents differentiated competition

Discipline is the basis of university talent training, scientific research and social service, and major is the embodiment of discipline. Almost all universities in the UK pay special attention to creating specialized disciplines, establishing specialized majors, and forming differentiated competition. British universities advocate the interdisciplinary cooperation of multiple characteristic disciplines and advantageous majors, to create advantageous majors and build characteristic discipline groups. For example, the University of Warwick encourages the establishment of interdisciplinary research centers at the first department level, breaking through the strict disciplinary boundaries within the department, and encouraging the exchange and cooperation of experts from different disciplines.

2.2.3 The specialty setting and talent training are influenced by the government

British universities are influenced by two factors when establishing majors and training talents: one is the traditional concept of independent thinking represented by Oxford and Cambridge universities; the other is the British government. Emphasizing that the goal of university education should be to provide the teaching of general skills applicable to the field of labor and to help college students improve their higher level of abilities and skills. In British university education, the phenomenon of "emphasizing humanities, neglecting science and technology" is very prominent, and the subject and professional Settings have obvious humanistic tendency. The policy change has changed this phenomenon and achieved good training results.

2.2.4 The professional construction of British universities is closely related to the industrial development.

At present, in the process of industrial structure adjustment, all countries in the world are developing industries with local regional characteristics. The premise of industrial development is to have sufficient characteristic professional talents, and the large-scale talent training cannot be separated from the professional setting of university education. One of the reasons for the lack of professional talents is that the reform of university talent training mode can not keep up with the pace of industrial development, which is also the reason for the difficulty of college students. Industrial knowledge creation, technology research and development often need the support of multiple related disciplines to achieve. In order to meet the market demand for talents, the relevant disciplines and majors of universities need to promote the benign interaction between disciplines, majors and market demand. For example, the key discipline of Cranfield University, ——— aviation aircraft manufacturing, has now radiated to engine, material science, machinery manufacturing and other related disciplines, meeting the demand of the market, making Cranfield University a university serving a variety of industries.

2.2.5 Professional construction and Labour market in UK universities

Market demand is an important basis for the setting of disciplines in British universities. Graduate enrollment has always been at the forefront of the growth of all majors in the UK in creative arts and design, medicine, computer science and other majors with strong social needs. The disciplines and specialties in the UK are highly refined and specialized. The talents trained by universities should eventually be able to find jobs, and the training of disciplines in British universities will be adjusted according to the changes of the market, so that the students can meet the needs of the labor market. For example, the hotel industry in the UK is very good, and there are many tourists to the UK every year, so the school will cultivate them Hotel management students to meet this part of the growing market.

2.2.6 Major construction and course design.

Universities integrate employability into their teaching curriculum, focusing on employers' participation in curriculum design and implementation. The British government provides policy support and organizational guarantee for enterprises to participate in education, and enterprises are also actively involved in education reform and the formulation of education policies. In the course of course design and implementation, universities constantly update the course content according to the actual needs of enterprises, institutions and other employers to meet the market demand. In addition, UK universities focus on creating internships for students to gain practical experience before graduation, provide employment and learning opportunities, and strive to provide more work arrangements for students.

3. The enlightenment of the construction of characteristic disciplines in western universities to China

3.1. The discipline development of universities should be more distinctive

In the development of a university, we should pay attention to the strategic planning of the development of the university, and clarify the focus of discipline development in the strategic planning of the university, so as to achieve the characteristic orientation of discipline development. In the field of discipline development, focus on the construction of a certain (some) discipline, highlight the development of a certain (some) discipline, so as to drive the optimization of the overall discipline layout of the university and the improvement of the overall level of the discipline. In the process of the development of disciplines and majors, Chinese universities should do something, highlight their characteristics, give full play to the utility of resources, promote the construction of characteristic majors, create brands with characteristics, and strive to be first-class.

3.2. Closely combined with the needs of the labor market and the changes of industrial structure adjustment

The British universities attach great importance to adjusting the major according to the changes in the labor market demand. The current situation of difficult employment of college students in China is also caused by the unreasonable professional setting, that is, the professional skills of college students do not match the social needs. Therefore, in the construction of majors in Chinese universities, the majors with strong market demand should be actively encouraged, while the majors with little market demand should limit their development or even not develop. Effectively do according to the market demand changes and industrial structure adjustment of the demand for talents to set up professional. British universities enjoy full autonomy in determining educational content and controlling degree standards. The positive significance of autonomy is that universities have full autonomy, which can better combine social needs and specialties to form their own characteristics. But if the power of autonomy is too great, the imbalance of discipline structure will arise. In China, the government and relevant departments should reasonably adjust the construction of majors, and give universities certain autonomy in setting majors, so that universities can better set majors according to social needs and their own specialties.

3.3. Coordinate the relationship between discipline and major to form a benign development

The fact that the major construction of British universities emphasizes on literature and light on science shows that the discipline and professional structure are unbalanced, but there is no problem of too narrow specialty. Therefore, when setting up disciplines and majors in China, we should be on the basis of discipline construction and basic disciplines, and deal with the relationship between general majors and dominant majors and characteristic majors. A comprehensive guidance system for the development of disciplines and majors will be formed for the cooperation of the government, universities and professional organizations that is conducive to the development of disciplines and

majors. The unified discipline and specialty development system of American universities, governments, civil society organizations and markets is of important reference significance for the setting and development of disciplines in the field of higher education in China.

3.4. The cultivation and development of characteristic majors depends on the benign system construction

The formation and development of sociology in the University of Chicago, as a basic academic unit, has an important fundamental position in the process of the formation and development of the discipline. In the process of cultivating university characteristic majors, we should strengthen the construction of modern university system, so that the department (college) can really play its due role in the development of disciplines and majors. Building a first-class teacher team is an important guarantee for the development of characteristic majors and first-class disciplines, and is the key to the cultivation of characteristic majors. Throughout the development history and current situation of the first-class American universities, the first-class teachers is the guarantee for the subject. Both the formation of the dominant position of the University of Chicago in the field of sociology in the United States in the 1920s, the rise of physics at the California Institute of Technology, and the outstanding achievements of Carnegie Mellon University in the field of electronics show that the excellent teaching staff is the premise of the professional development of the discipline. Therefore, the cultivation of characteristic majors should first build a high-level team of teachers.

4. The path selection of cultivating characteristic majors in China

4.1. The disadvantages of "path dependence" in cultivating university characteristic majors

4.1.1 The contradiction of excessive dependence on discipline development and laissez-faire coexist.

In the study of characteristic majors, there is a contradictory phenomenon in the construction of characteristic majors, that is, some colleges and universities rely too much on the development of disciplines, and most of the characteristic majors have the strong support of the dominant disciplines, while the majors without the support of the superior disciplines lack influence. At the same time, some other colleges and universities show the phenomenon of excessive laissez-faire, the construction of characteristic majors is allowed to develop, the main reason is that the discipline construction lacks a strong foundation, and the professional construction can not keep up with the pace of the market, often follow the trend, the lack of professional characteristics. The phenomenon of too much dependence on the development of disciplines mainly occurs in some research-oriented and comprehensive colleges and universities, which often pay more attention to the logic of the development of disciplines themselves and emphasize the ability of knowledge production, but the disadvantage is that they ignore the requirements of market factors for the majors of colleges and universities. The phenomenon of laissez-faire mainly occurs in some teaching-oriented universities, which have a weak subject foundation, and their professional Settings often take the existing strength of teachers as the reference frame, and the tendency to set up majors due to people often appears.

4.1.2 The contradiction between university characteristic majors relying excessively on policy factors and blindly following the market.

Public universities are often greatly influenced by government factors, while private universities are often influenced by market factors. This may be related to the source of university funding and the university operation mechanism. The funds of public universities mainly come from the government, so the operation mechanism is strongly intervened by the government. To some extent, universities are affiliated institutions of the government, and school-running behaviors are often greatly influenced by the government's public policies. Whatever the government advocates, universities will do, and school-running behaviors often have administrative color. Private universities, on the other hand, have diverse funding sources, mainly from NGOs, and are running

Mechanism often have strong flexibility and innovation, to adapt to the influence of market forces on school behavior, so what professional appeal will do what professional, professional Settings often have the characteristics of change, even what good admissions, choose to do what professional, so the professional setting principle is market oriented, rather than resource oriented, more not teachers. Therefore, the majors of private universities, or even the characteristic majors, will blindly follow the market. On the good side, this reflects the flexibility of private universities, but on the other hand, it is the specific manifestation of the blind following of private universities. Facts have proved that some of the above majors are not only the result of policy publicity and guidance, but also the result of market orientation and universities blindly following the market. Take animation and biological engineering for example. From the government level, they are the majors that universities hope to strengthen, and even pay attention to. However, it is a drawback in the major construction of Chinese universities, which leads to the phenomenon of popular majors.

4.2. The path selection of university characteristic specialty cultivation

4.2.1 Rebuilding of the modern university system

In the construction of characteristic specialty, as the government should both, not only implement policy intervention, but also strengthen the system construction. The government should make every effort to reduce policy intervention, pay attention to long-term system construction, and solve the relationship between universities and the government, the market and society. Scientific summary of the basic gains and losses of professional construction. Follow up the approved characteristic majors, quantitatively analyze the benefits and functions of the major, and provide scientific data and theoretical support for the future professional construction. Strengthen the market prediction and research of talent demand, and provide information basis for universities to set up majors.

4.2.2 Continue to implement specialized construction projects with special features

We should strengthen the continuous effect of the construction of characteristic majors. We will continue to strengthen the construction of characteristic majors, encourage different universities to establish more brand majors on the basis of the construction of characteristic majors, form different university styles and characteristics, guide the classified development of universities, and ensure their respective positioning. Strengthen the construction of professional certification. The government should not only strive to solve the funds for the construction of characteristic specialties, but also provide professional certification standards to solve the problem of professional norms. Gradually realize the scientific and democratic management of university education affairs, and enable the third-party institutions with certain qualifications and reputation to undertake the industry professional certification.

4.2.3 Establish a benign mechanism to guide the setting of university majors by classification.

We should learn from the concept of professional management in western countries and form a new mechanism of professional management with government guidance and university consciousness. To strengthen the system construction of macro monitoring, adapt to the needs of economy and society for majors, increase the restraint mechanism on majors, so as to form a good sustainable development mechanism, gradually increase the flexibility of universities to set up majors, and form the mechanism of university independent setting, government filing and social elimination. The most critical factor affecting the construction of characteristic majors is market information. For the complex and changeable market information, it cannot be completed only by the government and universities. It is necessary to cultivate and collect and release information with the help of credible intermediary organizations.[5]

4.2.4 Universities should enhance the "consciousness of quality culture".

Universities should constantly improve the awareness and action of the construction of characteristic majors, universities should give priority to professional construction in teaching work, seriously study the relationship between discipline construction and majors, the relationship between

popular majors and unpopular majors, and the relationship between majors and employment. Universities should strengthen discipline construction according to their own characteristics. The dominant disciplines of universities need to continue to strengthen their advantages, and strive to create supporting disciplines. Traditional majors need to keep pace with The Times, and emerging interdisciplinary disciplines need to occupy the forefront. Different schools should have different discipline development strategies. We should continue to explore and enhance the irreplaceability of professional, and gradually form a brand professional.

4.2.5 Universities should pay attention to the cultivation of internal factors in the professional construction.

University characteristic major not only involves the cultivation of quality concept, but also involves the refinement and guarantee of specific quality work. The training of characteristic majors needs to start from many aspects, among which the teachers are the key, the resource guarantee is the foundation, the training plan is the means, and the users' reflection is the result. First of all, universities should take improving the satisfaction of students, parents and employers with the school as the primary task to improving their professional construction. In the training of characteristic majors, colleges and universities should adapt to the market demand, establish new ideas of running schools, and gradually improve the cultivation of college students' core employment ability. Secondly, we should take the construction of teachers as a key task. A long-term task of characteristic specialty construction is highly valued. To improve the quality of university education, especially increase the construction of characteristic majors, the quality, ability and level of teachers are the key. At present, the serious shortage of teachers' investment in professional construction has become a major problem hindering the improvement of the quality of university education. The key to solving this problem lies in to regain the status of "teaching academic" and treat teaching as academic, that is, to emphasize that teaching and scientific research have equal important status, especially to ensure the baton role of teaching in evaluating teachers at the institutional level. Thirdly, we should pay more attention to the role of training programs in the cultivation of characteristic majors. Talent training involves many aspects, among which the training program is a specific detail that determines the quality of talent training. There is a famous saying in management: details determine success or failure. In fact, the training program embodies the concept of running a school, the level of teachers, resource guarantee and system construction of the university. Therefore, to a certain extent, the training program is a mirror of the university and a microcosm of talent training.[6]

5. Summary

Finally, we should pay attention to the resource guarantee as the basic content of the characteristic specialty cultivation. A good characteristic major is not only the "name card" of a university, but also an important embodiment of whether the resources of the university are sufficient. Because the formation of characteristic majors is a process of continuous accumulation, characteristic majors are only a small number of advantageous majors, and the demonstration effect and radiation effect have not been completely released. For many universities, there are still many majors to be improved and strengthened. With the guidance of the characteristic specialty construction policy, coupled with the drive of market forces, the comprehensive arrival of the university quality culture consciousness will not be far away.

References

- [1] Fang Xiaoli. Research on the construction and development of advantageous and characteristic majors in universities under the background of "Double First-class" construction [J]. Journal of Higher Education, 2018, (10): 4-6.
- [2] Liang micro. Research on the construction of quality assurance system of advantageous and characteristic specialties of local comprehensive universities [J]. Educational Review, 2017, (11): 36-40.

- [3] Lee Ruoxi. Take Sichuan University of Arts and Sciences as an example [J]. Journal of Sichuan University of Arts and Sciences, 2018, (03): 116-119.
- [4] Qi Min. Based on the perspective of characteristic major construction [J]. Journal of Texas College, 2018, (05): 97-98, 102.
- [5] Zhao Zhixing, Zhu Daiqiong. Influencing factors of the construction of characteristic disciplines in first-class universities, Based on the statistical analysis of 39985 universities [J]. Journal of Chengdu University (Social Science Edition), 2018, (01): 89-96.
- [6] Teng Zhengsheng. Research on the construction path of characteristics and advantages of local undergraduate universities, Rooted analysis based on the interview data of 15 universities [J]. Future and Development, 2017, (08): 100-104.