Analysis on the Construction of Disciplinary Specialty in Regional Open Universities

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Abstract: The construction of disciplinary specialty in open universities should not only follow the general rules of disciplinary specialty construction in higher education institutions, but also highlight the characteristics of open education. Taking Yunnan Open University as an example, this paper makes a preliminary analysis of the main contents and standards of regional open university disciplinary specialty construction.

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1. Introduction

In 2010, approved by the State Council, Beijing, Shanghai, Jiangsu, Guangdong, Yunnan, and the Central Radio and Television University became the pilot areas and units for “exploring the open university construction model”. In the process of pilot construction, Yunnan Open University follows the general rules of disciplines and professional construction in higher education institutions. Based on the characteristics of talent cultivation in applied undergraduate colleges and the characteristics of open education, it is based on the advantages and characteristics of undergraduate specialties with key and characteristic disciplines. As a final goal, we will promote the development of disciplines and specialty, and gradually build our own key and special disciplinary specialty.

2. Basis for the Construction of Disciplinary Specialty in Open Universities

2.1 Disciplinary Specialty Construction Concept and Main Content

Discipline and specialty are two different concepts. In higher education, these two concepts have a close relationship. Disciplines are scientific classifications and belong to the academic category; specialty are social divisions of labor and belong to the category of production and life. In cultivating talents, the discipline is the foundation of the specialty, and the specialty is the dependence of the discipline. In the construction of higher education, the construction of disciplines and specialties is closely related to build a discipline. Therefore, it is necessary to build a specialty; to build a specialty and to construct a discipline. In terms of cultivating talents, we are often referred to as “disciplinary specialty” [1]. This article mainly discusses "disciplinary specialty."

Disciplinary construction refers to the process of effectively organizing the disciplines of human, financial, material, scientific research and personnel training in combination with the actual situation of the school. The content of specialty construction can be summarized into the following three aspects: academic team building, scientific research and personnel training, and discipline environment and condition construction [2].

The specialties of colleges and universities determine the training objectives according to the discipline and certain social occupational division of labor, build a curriculum system, implement teaching and learning activities, and train senior professionals. Therefore, the main contents of professional construction include the construction of professional teachers, the development of professional courses, the construction of professional teaching materials, the construction of professional laboratories, the construction of professional practice bases, and the improvement of professional teaching methods and methods [3].
2.2 Basis for the Construction of Disciplinary Specialty in Open Universities

The reform and development of China's higher education and the selection of “double-class” universities all reflect the concept of higher education based on disciplinary construction. According to the classification of international education standards, combined with the reality of China's higher education, China's higher education institutions can be divided into academic universities.China's higher education institutions are also applied undergraduate colleges and vocational technical colleges [1], different types of higher education institutions, with different talent training objectives, while the focus of the construction of the disciplines and specialties are also different. The type of positioning of the Open University is an applied undergraduate college.

"Guiding Opinions of the Ministry of Education of the Ministry of Education on Guiding the Transformation of Some Local Undergraduate Universities to Applied Types" (Teaching [2015] No. 7) states that: Applied undergraduate colleges should adhere to demand orientation, serve localities, and produce teaching integration. School-enterprise cooperation as a breakthrough, establishing a professional system that closely links the industrial chain and the innovation chain; establishing a talent training model that integrates production and education and collaborative education. It realizes the professional chain and industry chain, curriculum content and professional standards, and the teaching process and the production process is docked. The curriculum reform is driven by social and economic development and industrial technology advancement, forming a new pattern of talent cultivation and technological innovation; strengthening the construction of “double-skilled and dual-energy” teachers and cultivating applied technical and technical talents that serve local economic and social development.

The Ministry of Education's Opinions on Running an Open University clarifies that an open university is an institution of higher learning with independent legal status and independent autonomy. It is a form of higher education. The functional orientation of an open university is guided by lifelong education. Therefore, establish an open, flexible, high-quality and convenient school-running concept, it fully utilizes modern information technology, innovate the form of running schools, organizational models and operational mechanisms, and serve the new institutions of higher learning for lifelong learning. Its "new type" is mainly embodied in: the training goal is "to meet the needs of the whole people, lifelong learning, and build a learning society". The training target is for all learners, extensively carry out academic education and non-degree education to meet different types of learning needs at different levels. The method is to integrate the professional and part-time teacher team that adapts to the characteristics of open education and is good at using information technology teaching through resource integration. So we need to build high-quality curriculum resources, strengthen the application of information technology, innovate learning organization forms, and create a digital learning environment.

Therefore, the construction of disciplinary specialty in open universities should follow the general rules of disciplinary specialty construction in higher education, accurately grasp the talent training requirements of applied undergraduate colleges, highlight the characteristics of open education. And determine the content of disciplinary specialty construction according to the needs of local economic and social talents and the foundation of school running, promote the construction of disciplinary specialty.

3. Construction of Disciplinary Specialty in Yunnan Open University

Yunnan Open University follows the general rules of disciplinary specialty construction in higher education institutions, comprehensively considers the characteristics of talent cultivation in applied undergraduate colleges and the characteristics of open education, determines the content of disciplinary specialty construction. It takes the advantage and characteristic undergraduate professional construction as the starting point, and focuses on the key disciplines. As the ultimate goal of construction, we will promote the construction of disciplinary specialty in a coordinated manner and gradually build our own key and featured disciplines.
3.1 Main Content and Standards of Disciplinary specialty Construction

The content of the **disciplinary specialty** construction of the Open University consists of the content of the discipline construction of the institutions of higher learning, the content of professional construction and the content of the professional construction of the open university. It mainly includes the cultivation of talents, the construction of teaching staff, the construction of curriculum resources, the construction of practical teaching systems, scientific research, learning support, service system construction and quality assurance.

The Open University of Yunnan is based on the "Fourth Discipline Assessment Index System and Description of the Ministry of Education" and the "National Standards for Undergraduate Professional Teaching Quality of the Regular Higher Education" issued by the Ministry of Education, and the Ministry of Education's Opinions on Running an Open University construction standards to ensure the standardization and quality of **disciplinary specialty** construction.

3.2 Construction of Disciplinary specialty in Yunnan Open University

Yunnan Open University actively explores the "double mode" integrated education of vocational education and open education, relies on the foundation of full-time higher vocational education, strengthens the connotation construction of open education, and continuously accumulates the professional foundation of disciplines. After nearly 6 years of exploration and practice, we have developed our own advantages in talent training, teacher team building, curriculum resource construction, practical teaching system construction, scientific research, and learning support services.

3.2.1 Talent Development

The characteristics of talent cultivation in Yunnan Open University are mainly reflected in the following aspects.

First, the relevant policies and policies of the state, and the education theory to build a talent training model. The talent training mode of higher education is a kind of overall teaching method based on certain rules, such as educational thought, education concept, curriculum system, teaching method, teaching method, teaching resource, teaching management system and teaching management environment. It is based on certain education. The reflection of the educational nature of the formation of theory and educational thought [4]. The documents such as the National Medium- and Long-Term Education Reform and Development Plan (2010-2020) and the Ministry of Education's Opinions on Running an Open University clarify the types and characteristics of open universities. The educational theory mainly includes the basic theories of distance open education and the "output-oriented theory": highlighting the student center - stimulating students' interest and potential in learning, innovating the curriculum system, reforming the teaching method, from "teaching well" to "learning well" Change; highlight "output-oriented" - centered on students' learning effects and results; highlight "continuous improvement" - emphasize students' effective learning, emphasizing process management and evaluation [5].

The second is to build a talent training model based on factors such as local economic and social development level, higher education status, education popularization level, school foundation and social needs. The level of local economic development, the number of higher education, the degree of popularization, and the enrollment rate are all low. The demand for higher education in society is relatively large. As an applied undergraduate institution that mainly serves local economic development, the school has comprehensively addressed the above issues. Investigate and analyze, and explore the construction of the “Exploration of the reform of the open-ended talent training model for higher vocational colleges”, which will link the full-time higher vocational education with the open and open undergraduate education through “wide-in and strict-out” and “learning overpass”. The construction of the three systems of “credit bank” and the innovation of the talent training model cultivate applied technical and technical talents for regional economic development.

Third, the talent training model meets the needs of learners' comprehensive and individualized development. The comprehensive and individualized development of learners depends on the level of comprehensive literacy including knowledge, ability and quality. Knowledge and ability:
Artificial intelligence, 5G, Internet of Things and other technologies have entered people's lives and began to grow into new economic growth points, which led to the accelerated iteration of professional positions. Only the cultivation of knowledge and ability around professional ability is far from adapt to the rapid changes and development of the market. In this case, the knowledge structure should be built around humanities, social sciences, natural sciences, management, computers, foreign languages, subject basic knowledge and professional knowledge. In addition to professional ability, the ability structure should also develop self-learning ability and have lifelong learning. The ability to enable students to continuously improve or transform their professional abilities through independent learning in their long career. Quality: Educators summarize the comprehensive literacy of people as scientific literacy, artistic literacy and humanistic literacy. With the development of social economy and the improvement of people’s living standards, learners have gradually shifted from the pursuit of survival and career to the pursuit of humanistic spirit such as respect and care between people. Therefore, the comprehensive literacy of open university learners should be based on the integration of advanced subject knowledge, professional ability and humanistic literacy, highlighting output orientation, consolidating basic knowledge of disciplines, improving professional competence, shaping the humanistic spirit of self-confidence, equality and values, and fostering patriotism. The values of dedication, integrity, and friendliness form the social values of freedom, equality, justice, and the rule of law, and have the feelings of home and country dedicated to building a prosperous, democratic, civilized, and harmonious country.

3.2.2 "Complex" Faculty Construction [6] [7]

Excellent faculty is the fundamental guarantee for promoting the development of the discipline and improving the academic level of the school. It is also the basis for improving the quality of personnel training and the overall school-running level of the school. Teachers of applied undergraduate colleges must not only have high professional theory, teaching level and scientific research ability, but also possess the quality of engineering and technical personnel, that is, "double-master dual-energy". Yunnan Open University develops the teaching staff from three aspects: team structure, academic ability and practical ability.

3.2.2.1 Faculty Structure

Supported by the four specialty alliances, and taking advantage of the open university resources integration, we have extensively invited and absorbed outstanding scholars, industry experts. Enterprise craftsmen at home and abroad, and adopted various measures to build a school-based teacher, leading teachers, and school-enterprise. The structure of the "mixed" faculty consists of three specialties: First, the general college teachers and professors form a curriculum construction team, which is mainly responsible for the professional construction and review of the content and structure of the professional curriculum system and knowledge system. As a lecturer, I recorded an online video open class, led the college teachers to declare the subject, carried out scientific research projects, and cultivated the teaching and research capabilities of the full-time teachers. Second, the full-time teachers and enterprise experts with rich teaching experience set up a "dual-skilled dual-type" mix. The course teaching team is responsible for the online and offline teaching and practical teaching of the course. The third is to form a curriculum coaching team from the outstanding teachers of the schools in the school system, responsible for guiding and practical teaching, providing course selection guidance, formulating individualized learning plans, and learning methods guidance, academic counseling and reminders, learning resources, heart counseling, career planning and other learning support services.

3.2.2.2 Academic Ability Training

In addition to the high-level academic ability of the discipline, high-level academic leaders also integrate the subject knowledge and apply the latest subject knowledge to teaching. An important way to train the academic ability of the teaching staff is to train and introduce high-level academic leaders. By cultivating and introducing high-level academic leaders, taking academic leaders as the brand, attracting outstanding talents in the discipline, organizing degree programs, academic echelon construction and professional construction, improving the academic ability of the teaching staff, and also carrying out scientific research to lay the foundation for social services.
### Practical Ability Training

The main characteristics of applied technology and skill talents are strong practical ability and innovative ability. This orientation of talent training poses higher requirements for teachers' practical ability. Yunnan Open University has cultivated and improved teachers' practical ability by cultivating existing teachers, introducing “double-quality teachers”, hiring part-time teachers, and establishing teachers' on-the-job training system.

### Curriculum Resource Construction [7]

Yunnan Open University guarantees the quality of curriculum resources from three aspects: curriculum resource construction standards, construction approaches, and discipline construction.

#### 4.1 Construction Standard

The development of information technology has made the spirit of openness, transparency and equality of the Internet infiltrate into education and teaching, and has continuously updated the methods and means of teaching. It has also put forward new requirements for curriculum resources. Curriculum resources from early courseware and difficult video resources can be developed to the current large-scale online open course. In 2015, the Ministry of Education issued the “Opinions of the Ministry of Education on Strengthening the Application and Management of Online Open Courses in Colleges and Universities” (Teaching [2015] No. 3), which put forward requirements for the construction of online courses and launched the construction of national quality online open courses project. The Yunnan Open University has formulated curriculum resource construction standards in accordance with the requirements of the national quality online open curriculum construction, which is used to standardize the construction of curriculum resources and guarantee the quality of resource construction.

#### 4.2 Construction Route

Adopting self-construction, co-construction or introduction of various domestic and international online courses, video courseware and other high-quality resources, modular integration according to subject categories, academic level, resource types, etc., to meet the learning needs of different types and levels of learners.

#### 4.3 Subject Construction

By strengthening discipline construction, Yunnan Open University timely absorbs the latest achievements in disciplines, industries and industry development, and updates the course content in real time to improve the quality of curriculum resources construction.

### Construct A "Four-in-One" Practical Teaching System [7]

From a macroscopic point of view, the “four-in-one” practical teaching system mainly refers to the practical teaching system that is built to realize the professional talents training goal and is implemented in the whole process of talent training through the talent training program, including the structure and content system of practical teaching activities. The elements such as the management system and the evaluation system are the backbone support system for cultivating applied technical and technical talents, and it also is an important channel for the cultivation of innovative talents. From the microscopic point of view, it refers to the deep integration of modern information technology, integrating the "network virtual training", "school physical training", "out-of-school expansion training" and "learning package individual training" in one practical teaching content system. "Network virtual training" is mainly to build a network virtual practice teaching of the main courses supported by information technology in the open and open education environment; "intramural physical training" to the existing laboratory, training room and training in the school Based on the base, some courses and concentrated practice teaching sessions will be carried out. The “out-of-school development training” will be based on the off-campus training base
to carry out professional production internships and post-internships. Students will learn according to their region and time conditions demand, select the local practice teaching base according to the navigation map, and flexibly arrange individual practical training. "Learning package individual training" is to develop the practical teaching link into learning materials including learning CD, teaching video, simulation training, etc. The “learning package” is provided to learners to learn independently, simulate operations and practice.”

6. Scientific Research

Scientific research is one of the four specialty functions of colleges and universities, and it is also an important part of the disciplinary specialty construction. Applied undergraduate colleges should promote applied scientific research through the integration of production and education, school-enterprise cooperation, improve the conversion rate of scientific and technological achievements, and serve the transformation and upgrading of local industrial economy. As an applied undergraduate college, the Open University has weak disciplinary development ability and has not yet formed a complete disciplinary system. Scientific research should focus on discipline construction, and gradually form its own characteristics and advantages through the training of academic teams and the construction of disciplines and basic conditions.

Academic echelon construction. Three approaches are adopted: one is to introduce and hire high-level and highly educated talents; the other is to take the key project research as an opportunity to optimize and integrate the resources within the school, to train academic leaders with high scientific research ability and the backbone of young and middle-aged academics. Experts and professors from enterprises, industries and universities will carry out “transfer, help and bring” to young teachers. Through these three channels, we will establish a research team with reasonable structure and outstanding academic ability to lay the foundation for promoting scientific research.

Platform and center building. Linked with high-level universities and research institutes, strengthen the accumulation of industrial technology skills through the integration of production and education, school-enterprise cooperation, promote the transfer, application and innovation of advanced technologies, extensively carry out technical services for small and medium-sized enterprises, and actively build and declare various scientific research. The platform and R&D center provide physical support for scientific research and team building.

7. Learning Support Service System [8][9]

Resources, platforms and learning support services are three important elements of open education. The idea of learning support services has developed and developed from the practice and theoretical research of the Open University of the United Kingdom and is recognized as one of the key factors for the success of the UK Open University. The composition of the learning support service system depends on the type, level and academic system of education held by each open university. Based on the open university support service model at home and abroad, Yunnan Open University has built a learning support service system based on Internet, mobile communication network and cloud technology for online learning. The system consists of academic support service system, information consulting service system and lifelong education support service. The system and service quality assurance system are composed of the following features: First, multi-functional integration. The functions of teaching, learning, management, and information services are integrated. The second is the combination of online and offline. Online support services are implemented through the Internet, mobile communication networks and cloud technologies; offline support services are implemented through the school system. The third is to reflect the cultural inheritance function of the university, use artificial intelligence technology to build a smart campus, improve the digital management level of the campus, and spread the campus culture. The fourth is to serve lifelong education. Through the construction of credit banks, we will establish various types of education and levels of courses, training credit exchange systems, and build a lifelong learning "overpass."
8. Quality Assurance

The teaching quality assurance system of Yunnan Open University consists of two main bodies: the internal quality assurance system and the external quality assurance system. The internal quality assurance system consists of the three main processes: the main process of student learning, the main process of school running, and the main process of quality monitoring and evaluation of the school; the external quality assurance system consists of relevant government departments, social commentary and mass media, and four specialty support alliances. The three-party evaluation agency consists of four modules. The two systems are unified, and the overall quality management of the teaching process is implemented to ensure the quality of personnel training.

9. Conclusion

The construction of disciplinary specialty in open universities should not only follow the general rules of disciplinary specialty construction in higher education institutions, but also accurately grasp the talent training requirements of applied undergraduate colleges, and highlight the characteristics of open education. The main content of the comprehensive discipline and specialty construction of Yunnan Open University, overall planning discipline and specialty construction work, based on the construction of advantages and characteristic specialties, gradually built its own key and characteristic disciplines. The exploration of the construction of regional open university disciplinary specialty provides an example for the construction of regional open university disciplinary specialty.

References: