Construction of documentary evidence integration modular curriculum system based on PGSD model

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Abstract: documentary evidence accommodation is the main connotation of the 1 + X certificate system, and exploring the curriculum mode of documentary evidence accommodation is the responsibility of the implementation subject of the 1 + X certificate system. The existing documentary evidence integration curriculum model has the problems of form being greater than connotation, academic certificate and X certificate teaching. In the era of digital economy, the cultivation of high-quality compound technical and skilled talents needs the corresponding talent cultivation mode and curriculum system. Taking the cross-border e-commerce major of the pilot unit as an example, this paper uses the PGSD ability analysis model to analyze the comprehensive professional ability of the post, combined with the "wide base, flexible module" curriculum mode, and constructs the documentary evidence financing modular curriculum system to meet the sustainable development of talents and meet the professional ability needs of enterprises.

Key words: documentary evidence accommodation; Modular courses; PGSD capability analysis; Comprehensive professional ability

Introduction

According to the national vocational education reform implementation plan, the pilot work of "academic certificate + several vocational skill level certificates" system will be started in Vocational Colleges and application-oriented undergraduate colleges. The 1 + X certificate system is a basic system in the construction of the national vocational education system, and it is also a major system innovation in the construction of the development mode of vocational education with Chinese characteristics. The "20 articles of vocational education" clearly put forward the requirement of "exploring the interconnection of academic certificates and vocational skill level certificates".

The main connotation of the 1+x certificate system is the integration of documentary evidence, that is, the mutual connection and integration of academic certificates and vocational skill level certificates in terms of standards, courses, training system, etc. The teaching team of cross-border e-commerce in our school actively responded to the 1+x certificate system, and is the pilot and testing unit of Alibaba's "cross border e-commerce B2B data operation vocational skill level certificate". The major difficulty encountered by the specialty in the pilot process is documentary accommodation, which has the following problems.

1. existing problems in the construction of documentary evidence integration curriculum system

1.1+x certificate content is difficult to be directly superimposed into the existing curriculum system

In the original curriculum system of academic education, the number of class hours has been saturated, and the content of X certificate is difficult to be superimposed. If some training courses are adjusted to "pre exam training" for the purpose of textual research, it will lead to the "two skins" of diploma education and X certificate education, and the integration of documentary evidence is like talking on paper. Therefore, we must redesign and integrate the original curriculum system of academic education, and integrate the content of X certificate into the curriculum system.

1.2 the existing documentary evidence accommodation mode is more formal than connotative and fails to reach the essence of the 1+x certificate system

For example, simply connect professional basic courses with academic certificates, professional core courses with intermediate vocational skill level certificates, and professional development courses with advanced vocational skill level certificates. This method is applicable to fixed x certificate. If the type or content of X certificate changes, the professional curriculum system and teaching content need to be significantly adjusted. This relatively fixed course structure is not conducive to the timely introduction of new industry technologies, new processes, new norms and new models into the teaching content.

1.3 the existing curriculum system has clear professional boundaries and pays attention to the cultivation of single professional ability

Insufficient consideration of the cultivation of comprehensive professional ability to cultivate compound technical and skilled talents is the requirement of Vocational Education in the digital economy era, and it is also the purpose of the 1 + X certificate system. The existing

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curriculum system has obvious professional attributes, pays attention to the cultivation of single professional ability, and does not design a documentary evidence accommodation mechanism that breaks through the professional boundaries from the perspective of professional groups. Its documentary evidence accommodation is also limited to the accommodation within the major, which cannot achieve the goal of cultivating compound technical and skilled talents.

2. construction method of documentary evidence integration curriculum system

2.1PGSD model analysis of post comprehensive professional ability

Based on the concept of sustainable development education, the PGSD ability analysis model is proposed to build a bridge from post professional ability analysis to vocational and technical knowledge teaching. Starting from the professional field related to the major, the model analyzes the needs of different levels and types of professionals in the professional field in the development and change of economy and society, determines the professional post group for the talent training at all levels, and then analyzes the professional ability required for typical professional activities, work tasks and competent professional activities through the "fishbone" ability analysis. Among them, P (professional&vocationalcompetences) represents the technical skills required to complete the job tasks, that is, professional abilities, G (generalcompetences) represents the general abilities of Humanities and society, information technology, language, etc., and S (societycompetences) represents social abilities such as laws and regulations, civic responsibility, and professional ethics, D (developmentcompetences) stands for innovation and entrepreneurship, discriminative thinking, critical thinking and other development abilities.

2.2 ability based concept to guide modular teaching design

Ability centered education has become an important development trend of higher education in the world, and it is also an important problem faced by higher education in China. "Modular teaching" is a key word mentioned in important documents of Vocational Education in recent years. It is the specific presentation of the ability based theory and one of the solutions of documentary evidence integration. The concept of "modular curriculum" comes from the competency based curriculum model, such as CBE, MES, and the "broad foundation, flexible module" curriculum model proposed by Chinese scholar Jiang Naiping. The modular curriculum structure emphasizes the flexibility of the overall curriculum structure and the ability orientation of the curriculum module, which helps to build a flexible, integrated and flexible curriculum model and adapt to the talent training mode of 1 + X certificate system.

2.3 "broad base and flexible module" to realize the connotation construction of documentary evidence accommodation

Jiang Naiping's two-stage "wide foundation and flexible module" curriculum structure based on the ability standard aims to cultivate compound applied talents. "Broad base" focuses on the cultivation of key abilities and the formation of comprehensive professional abilities in the face of a group of related occupations or even several related occupational groups, and "flexible module" focuses on the strengthening of professional ability and professional ability according to the necessary knowledge and skills for a certain occupation and a certain post.

The assumption of this course structure coincides with the spiritual core of the 1+x certificate system. The part of "1" of academic certificate corresponds to "broad base", focusing on cultivating the ability of sustainable development; The "X" part corresponds to the "flexible module", which cultivates the professional skills applicable to the job. The X certificate course module is flexible and innovative, which is convenient for keeping up with the industry and timely adding new technologies, new processes and new models of the industry.

3. case study of documentary evidence integration modular curriculum system

Based on the concept of competency based vocational education, the cross-border e-commerce major of our university has explored a three-stage five step curriculum development path of "analysis selection construction", and built a modular curriculum system of documentary evidence integration based on PGSD competency analysis.

3.1 in the first stage, analyze professional ability

This stage includes two steps. The first step is the analysis of typical professional activities and work tasks. The professional Steering Committee is composed of experts from regional governments, administrations, schools and enterprises. It uses various research methods such as questionnaire survey, in-depth interview, case analysis, brainstorming and so on to carry out task analysis from the perspective of cross-border e-commerce job groups, and determine typical professional activities with typicality, educational value and logical relationship, Then according to the "work content" or "work process", analyze the work tasks in each typical occupational activity.

The second step is PGSD capability analysis. Facing one of the typical professional activities and tasks, this paper analyzes the comprehensive professional abilities that each task should have, namely, the abilities of "professional ability, general ability, social ability and development ability". Taking the post of "cross border e-commerce platform operation" as an example, the following PGSD capability analysis table is made, as shown in Table 1.

Table 1PGSD capability analysis - cross border e-commerce platform operation post

Cross border e-commerce platform operation	A	Work task and number	A1 store decoration planning and Implementation	A2 multilingual product release and management	A3 store marketing planning and Implementation
			A4 platform search engine promotion	A5 store operation effect analysis and review	

Cross border e-commerce platform operation	The post of cross-border e-commerce platform operation is mainly responsible for the planning and implementation of store decoration, and can formulate and implement the store decoration plan according to the platform operation planning plan; Can release multilingual products, and complete product grouping management and window product settings; Able to plan and implement the store marketing plan; Can optimize the platform search engine promotion according to consumers' search behavior and habits; Be able to analyze the operation effect analysis and re order according to the store data.	
Competency category	number	Capability description
vocational ability	P-a1one	Be able to formulate shop decoration scheme according to the platform operation planning scheme and in combination with the enterprise and commodity conditions
	P-a1two	Able to guide the development of shooting plans and photo screening standards according to the shop decoration plan
	P-a1three	Can use several software tools to optimize pictures and edit short videos
	P-a2one	Can make keyword table according to product characteristics, combine titles, and complete product release process
	P-a2two	Can release multilingual products, and use templates to improve product release efficiency and quality
	P-a2three	Be able to complete product distribution, grouping management and window product setting according to the operation plan
	P-a3one	Be able to participate in store marketing planning and write the English version of company introduction and product details
	P-a3two	According to the store marketing plan, write the marketing activity copy, and implement and summarize according to the plan
	P-a3three	Be able to formulate and implement window and top exhibition promotion plans according to the store marketing plan
	P-a4one	Able to formulate and implement the search engine promotion plan within the platform
	P-a4two	Be able to analyze the search habits of consumers in overseas target markets, product sales attributes and other data, complete the collection of Title keywords, make product titles, accurately describe product information, and complete product release with high quality
	P-a4three	According to the development goals of the store, combined with SEO optimization tools, SEM marketing methods, etc., formulate the platform search engine promotion scheme
	P-a5one	Be able to collect and summarize store exposure, click, inquiry and other data, and analyze the investment effect in combination with the amount of advertising
	P-a5two	Be able to summarize specific commodity operation data and analyze customer sources and quality in a specific cycle
	P-a5three	It can collect the data of similar competitive products on the whole platform for horizontal data analysis and comparison
General capability	G-a1one	Ability to use cross-border e-commerce platforms
	G-a1two	Have the ability to apply graphics and image processing, short video shooting and production software
	G-a2one	It has the ability to apply information technology and digital technology to meet the needs of digital development of international trade
	G-a2two	Good foreign language skills
	G-a3one	Have certain copywriting ability
	G-a3two	Have certain organizational management ability and planning and execution ability
	G-a4one	Capable of network information collection and analysis
	G-a4two	Have certain consumer psychology and behavior analysis ability
	G-a5one	Capable of data analysis and presentation
	G-a5two	Capable of process optimization and problem solving
Social capacity	S-a1one	Have honest and trustworthy professional ethics and comply with laws and regulations related to cross-border E-commerce
	S-a2one	Good foreign language skills
	S-a3one	Have an international vision and grasp the cutting edge of the trend
	S-a4one	Good intercultural communication skills
	S-a5one	Have certain project management ability

Development capacity	D-a1one	Have the ability to integrate knowledge and comprehensively use knowledge to analyze and solve problems
	D-a2one	Good learning ability, communication skills and teamwork spirit
	D-a3one	Innovative and entrepreneurial
	D-a4one	Have the ability of inquiry learning, lifelong learning and sustainable development
	D-a5one	Critical thinking and innovative spirit

3.2 the second stage is to select x certificate

The major combines the talent training objectives with the professional ability of the job group, integrates the industry enterprise research and the opinions of the professional Steering Committee, and currently selects two X certificates, namely, "cross border e-commerce B2B data operation vocational skill level certificate (intermediate)" and "cross border e-commerce B2C data operation vocational skill level certificate (intermediate)". These two kinds of certificates are jointly developed by Alibaba group, a training evaluation organization, in conjunction with Tsinghua University's National Service Research Institute, Zhejiang University, Zhejiang Vocational College of Finance and other universities. The certificates have high gold content, high authority, high industry recognition, and rich online teaching and training resources provided by the training evaluation organization, It is convenient for students to carry out learning and training on the b-end platform and C-end platform of cross-border e-commerce.

3.3 in the third stage, build a modular curriculum system of documentary evidence integration

There are two steps, "documentary evidence integration" and "building a modular curriculum system".

The first step is "documentary evidence accommodation". The essence of 1+x certificate system lies in the convergence of documentary evidence. According to the opinions of vocational education experts, the integration of documentary evidence is mainly reflected in four aspects: the docking of professional teaching standards and vocational skill level standards; Professional teaching content and vocational skill level assessment content docking; Professional course teaching arrangement and vocational skill level certificate training time docking; Professional course assessment arrangement and vocational skill level assessment docking.

According to the idea of "four docking", the cross-border e-commerce major sets professional teaching standards in combination with the PGSD ability analysis results and the professional skill level standard of professional X certificate; Set the teaching content of relevant professional courses according to the assessment content of X certificate; The assessment of professional courses related to x certificate is basically synchronized with the assessment of vocational skill level, and the total score of the course is evaluated by referring to the assessment results of X certificate.

The second step is to build a modular curriculum system according to the methodology of "broad base and flexible module" curriculum structure. The course structure of "broad foundation, flexible module" reflects the ability standard from the basis of segmentation. The cross-border e-commerce major regards the four aspects of PGSD capability analysis as the four major modules of the course structure of "wide base, flexible module". The "general capability module", "social capability module" and "development capability module" are in the "wide base" part, and the "professional capability module" is in the "flexible module" part. Each capability module is composed of several course packages. 1

The ability module of "wide base" mainly cultivates students' ability of sustainable development. The content of the "wide base" stage is not specific to a specific occupation, but a collection of knowledge and skills necessary for a group of related occupations. As a shared course of X Certificate in the major, its "general ability module" includes "professional group platform course package" and "public compulsory course package", including courses to cultivate the general basic ability of the major, as well as courses in foreign languages, science, humanities and sports; The "public course package" of the "social ability module" consists of military courses, ideological and political courses, school-based characteristic courses, and second classroom courses; The "public course package" of the "development ability module" consists of Ideological and political courses, employment and entrepreneurship courses, and innovation and entrepreneurship courses.

"Flexible module" mainly cultivates students' vocational skills and job competency. The content of the "living module" stage is not only for the knowledge and skills necessary for a particular occupation, but also for skills. The "living module" is divided into several "big modules" facing each occupation in the occupation group, and each "big module" is composed of several "small modules". Each "small module" is relatively independent in content and can be flexibly combined for each specific ability, skill or knowledge. Taking the cross-border e-commerce major as an example, the "big module" here is a course package formed according to the three major job groups of the major, which is divided into "platform operation course package", "data analysis course package" and "whole network marketing course package"; "Small module" is a course in the course package, which is selected from the categories of "professional core course", "professional compulsory course" and "professional development course". Each course is numbered to facilitate flexible selection and adjustment of course packages.

According to the "professional ability analysis" of the PGSD ability analysis table, the courses that meet the requirements of the professional ability of the post are selected from the three types of professional courses to form the course content of the "living module" part. The courses in the course package are structured and progressive. The credits and class hours of the three course packages are roughly the same, and the courses are evenly distributed and balanced.

"Professional ability module" is the main embodiment of "documentary evidence accommodation". If students decide to obtain an

X certificate, they can select the relevant courses of the course package according to the assessment requirements of the X certificate and the credit hours under the guidance of the teacher. After completing the courses, they can participate in the corresponding x certificate assessment. If they pass the assessment, they can meet the requirements of the academic certificate and the X certificate at the same time. For example, the work fields and tasks of "cross border e-commerce B2B data operation vocational skill level certificate (intermediate)" involve "platform operation", "data analysis" and "whole network marketing", and its documentary evidence accommodation course is selected from three course packages to form the "documentary evidence accommodation course package" of students.

4. conclusion

The cross-border e-commerce major aims to cultivate high-quality compound technical and skilled talents. It uses the PGSD ability analysis method to carry out professional ability analysis for job groups, and combines the ability based curriculum model to guide the modular teaching design, so as to build a flexible and flexible documentary evidence integration course system that meets the students' sustainable development and the professional ability needs of enterprise positions. The major will continue to perform its pilot duties, actively carry out the teaching reform of curriculum construction, and improve the theoretical level of vocational education and the quality of talent training.

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