Strategies for Informatization Construction of Continuing Education Management in Higher Vocational Colleges：Taking Pharmacology Courses as an Example

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Abstract   In the era of rapid development of informatization, the informatization construction of national higher vocational colleges has been in the period of application deepening. China's education system is deepening to the development of mass education, and higher vocational colleges' adult continuing education plays a great role for the realization of education popularization. With the continuous expansion of continuing education enrollment scale, the diversified development of education mode, the higher complexity of continuing education management and the increase of management workload, the traditional management method has gradually become unapplicable. Higher vocational colleges can greatly improve the management level by promoting the informatization of education management according to their own professional or regional advantages.

Key words   Higher vocational college, Management of continuing education, Informatization, Pharmacology

1   Introduction

For a long time, the positioning of continuing education in many higher vocational colleges, as an auxiliary part of China's education, is relatively low. It has not been the focus of development, and schools do not pay attention to it, neither. In the development and construction of higher vocational colleges, the investment of capital and manpower is often very little. Many higher vocational colleges with good development of continuing education basically rely on the development and expansion of the continuing education sector. There are few higher vocational colleges that can really realize the informatization of continuing education management. For a long time, the orientation and concept of adult continuing education have increasingly restricted the development of management informatization. For many higher vocational colleges, the informatization level of continuing education management is not high, which is not coordinated with the expansion and development of continuing education scale[1]. In many higher vocational colleges, the capacity of adult continuing education management personnel is uneven, and the informatization capability is poor. The thinking of many management personnel is backward. They are used to using the traditional way of enrollment, teaching, school roll and other management. The management informatization is not so important. Different from full-time students for which centralized management can be carried out, in the process of teaching, it is not easy to carry out spot check and supervision for adult continuing education students' learning situ-

ation and mastery of knowledge. It can establish a relatively effective education management system to promote the development of high quality adult education.

2   The importance of informatization construction of adult continuing education management in higher vocational colleges

On December 10, 2015, the State Council issued the *Opinions on Action Guidance for 'Internet + '*, which clearly puts forward to promote Internet and deep integration and innovation and development in various fields, explore the new way of education service supply, encourage education institutions to cooperate with Internet companies, develop education resources according to market demand, promote the integration of offline and online education resources, share resources of online courses, and promote large-scale online learning mode. On March 22, 2016, the State Council officially promulgated the *Outline of the 13th Five-Year Plan for National Economic and Social Development*, which clearly states to "develop online education and distance education, and integrate all kinds of digital education resources to provide services to the whole society", which indicates that a lifelong education system will be built by using modern distance education technology. The 19th National Congress of the Communist Party of China proposed to strengthen vocational training information level[2].

The popularity of the Internet and the younger audience of continuing education make students more and more accept online education. Therefore, based on the policy driving, the change of students' learning habits and the management needs of multi-link and fast-paced in the information age, the School of Continuing Education of Bozhou Vocational and Technical College has initiated and continuously promoted the construction

of continuing education management informatization in order to adapt to the change of continuing education under the new situation. It is the demand of the times and the demand of the society to apply the information technology to the continuing education of colleges and universities and to promote and develop the informatization of teacher education specialty. Firstly, from the perspective of the development of higher vocational education, the informatization of continuing education management needs to be based on the modernization of various disciplines. Only by promoting the informatization of continuing education in colleges and universities can we guarantee the informatization of the whole pharmacology curriculum system and the informatization of teachers' teaching. The informatization of continuing education management should become an important part of teachers' teaching management skills, and the informatization of teaching skills training can improve teachers' informatization level and cultivate students' modern educational accomplishment. Secondly, from the perspective of academic research in higher education, the informatization of continuing education management provides a modern teaching and research system platform for all disciplines, which provides a scientific guarantee for the further development of academic research[3]. Finally, the information technology of continuing education in colleges and universities should be developed vigorously, which is beneficial for learners to have more channels for relearning and communication, constantly expand the scope of knowledge, and adapt to the development of society. It is conducive to lifelong learning and continuous improvement of professional knowledge and personal cultivation.

Although the information technology of continuing education management has made important stage achievements and accumulated certain foundation and experience, it is still in the initial stage of comprehensive construction and extensive application. The idea of emphasizing construction but neglecting application and service still exists. The overall planning of the school is not strong, the overall planning lags behind, and the responsibilities of all parties are not clear. Information system decentralized construction[4], repeated construction and "information island" situation is still common. To promote the informatization of continuing education management still lacks powerful team, funds and mechanism guarantee, and the long-term mechanism of sustainable development is not perfect.

3 Strategies for informatization construction of continuing education management under the background of "Internet +"

3.1 Core business It includes students' basic information management, school roll management, enrollment management, graduation management, teachers' basic information management, admission and withdrawal management, school's basic information management and so on[5]. The information management of core business can be realized through the national core system (or the provincial general system that is connected with the national core system), or through the school's own system. The self-built school system must meet the relevant standards of the national education management informatization, meet the data requirements of the national core system, and realize the data connection with the national core system (or the provincial common system connected with the national core system).

3.2 General business It includes students' academic management, payment management, physical and mental health management, ideological and political education management, teachers' education and training management, teaching management, curriculum resource management, examination management, *etc*. The information management of the general business of colleges and universities can be realized by the provincial general system or by the school's own system. The self-built school system must meet the relevant standards of the national education management informatization, meet the data requirements of the national core system, and realize the data connection with the national core system (or the provincial common system connected with the national core system).

3.3 Characteristic business The characteristic educational management information system with the characteristics of the school should be developed and constructed, including student exchange management, alumni management, teacher cooperation and exchange management, scientific research results management, school-enterprise cooperation management, information disclosure, home-school communication, *etc*. The characteristic system must conform to the relevant standards and norms of national education management informatization, and meet the teachers teaching counseling platform and support the educational administration manager platform[6], from admissions, online banking charges, school registration, student status management, teaching plan and arrangement, schedule arrangement, the superintendent course learning, learning, exam, teacher management, performance management, graduation and degree audit, the whole process of the remote network management, in order to achieve degree to continue education "hybrid" teaching mode of teaching educational administration.

3.4 Full access to the online test system to realize the online examination Based on the development strategy of continuing education informatization, the online test system OTS has been introduced into the teaching platform with Anhui Open University to realize online assignments and tests of pharmacology courses. As the core module of online teaching products, a series of functions have been realized, such as the construction of online question bank of pharmacology courses, intelligent test paper formation, big data score analysis, and batch examination paper review, which have improved the efficiency of examination organization. In addition, through the construction of non-academic education platform, training project management, online teaching, online interaction and class management on the platform, students can also enjoy recording and broadcasting of pharmacology courses, self-

testing of original questions and knowledge points, certificate inquiry and other services, which enhance the social service function of continuing education.

4 Conclusions

By using modern information technology to innovate the management of continuing education, the teaching mode of pharmacology courses has changed from the traditional "face-to-face teaching + self-study" to the "hybrid" teaching mode combining online and offline. Students' personalized learning has entered the "mobile era", which has solved many problems such as the shortage of teachers' resources, the prominent contradiction between students' study and their work, and the low school attendance rate. The learning mode has changed from teacher-centered to student-centered, which highlights students' status of autonomous learning and further improves the quality of education. The access of online examination improves the rate of students to the examination and promotes the improvement of teaching quality. The construction of real-time teaching management platform for pharmacology courses highlights the change of teaching philosophy, management ideas and management methods. It transforms from traditional management to modern service. It takes students as the center, provides

support services for the whole process of teaching and teaching affairs, and improves the level of management service. It is beneficial to solve the problem of engineering contradiction in correspondence education.

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Teaching Development Center of Northwest A&F University regularly invites experts from inside and outside the school to give lectures and conduct training. This provides the possibility for improving teachers' network application ability and forming a "networked" teacher workforce.

4.2 Strengthening the campus network management of agricultural and forestry colleges and universities and cooperating with public security departments to continuously purify the network environment Agricultural and forestry colleges and universities should strengthen education on laws and regulations to enable college students to firmly adhere to the code of conduct that does not make rumors, believe rumors or spread rumors, to consciously maintain social and campus stability and to effectively put an end to the channels through which western political ideas penetrate, and serious investigation and punishment should be conducted against rumors and rumor spreaders in the school. The College of Marxism, Northwest A&F University requires that all teachers of ideological and political theory courses should take the initiative to occupy the position of online education and actively interact with students through the Internet, QQ, WeChat and other channels to keep abreast of students' thinking trends and realize the blending of social and political beliefs and individual life beliefs of college students.

4.3 Innovating and reforming the existing ideological and political education to enhance the effectiveness of education Changing the inadequate and passive state of political belief edu-

cation for students in agricultural and forestry colleges and universities in the network environment is not to weaken or cancel the current political and ideological education work system and teaching work, but to face the network environment, further strengthen the current ideological and political education system and teaching work, give play to the advantages of ideological and political education in colleges and universities with Chinese characteristics, and consolidate and strengthen the Marxist political beliefs of college students to endow them with political composure to cope with shifting events. By imitating the media dissemination of "telling a Chinese story well", we should focus on telling "Chinese political and ideological education story" well, and educate and disseminate more lively to enable China's political, ideological and educational stories to spread throughout the world through the Internet and help China develop peacefully.

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