

Research on the Construction of Knowledge Service Engineering System of Private University Library Based on the Integration of General and Vocational Talents Training

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Abstract: For a long time, libraries have played an important role in the cultivation of talents and the self-construction of colleges and universities, which has been highly valued by academia and educational circles. In professional evaluation and annual inspection of private colleges and universities, it is an important evaluation index and an important content of the continuous development and construction of a university. However, in the present society where the mobile Internet is becoming more and more developed, the self-construction and service content of the current library are undergoing profound changes in technology and content brought by the times. There is a big gap between the traditional library orientation and the contemporary library which is supported by modern technology and the era of popularization of higher education, especially reflected in the narrow orientation of service function and the tradition and singleness of service content. In view of this, based on the orientation of talents training in private colleges and universities, this paper starts with the innovation of library service function and service content, borrows the concept of engineering, and proposes 'Constructing a library service engineering system based on the integration of general and vocational talents training', so as to integrate into the talent training mechanism of the orientation of application-oriented colleges and universities in private colleges and universities, help private colleges and universities educate students, and explore the ideas and ways to realize the engineering of knowledge service.

1. Introduction

1.1 The Popularization of Higher Education

Since the enrollment expansion of colleges and universities in 1997, China's higher education has developed by leaps and bounds. According to the "Statistical Bulletin on the Development of National Education in 2019" issued by the Ministry of Education, there are 2,688 ordinary colleges and universities (including 257 independent colleges) in the country, with a total scale of 40.02

million students and a gross enrollment rate of 51.6% in higher education. China has officially entered the popularization stage from the popularization of higher education [1]. With the popularization of higher education in China, China has become the country with the largest total amount of higher education in the world. On the one hand, let more children in China have the right to receive higher education and realize equality and fairness for all in higher education; On the other hand, China's higher education has to face challenges and pressures for fairness. For colleges and universities carrying out higher education, they have to face many problems, such as the extreme shortage of hardware facilities; The disproportion of teachers and human resources is obvious; The homogenization of colleges and universities has made the development of colleges and universities far away from the reality of China's development, and trained a large number of knowledge owners, but they are not talents needed by the market. At the same time, the contribution and service of colleges and universities to the region also lags behind the local development reality. As far as students receiving higher education are concerned, the popularization of higher education has to give birth to employment pressure year by year. Even internships are fiercely competitive, and it is difficult to find counterpart internship units, even to the point where students buy internship certificates on line [2]. How to guide the popularization of Chinese higher education to a better development direction and enable Chinese citizens to better achieve fairer higher education, the supply-side reform in the field of higher education is imperative. Under the background of the increasing total amount of higher education and the supply-side reform in China's current economic field, China's higher education seeks its own development and breaks through the bottleneck [3]. From a macro perspective, it is necessary to reconstruct the types of higher education, so that vocational education can become a type of education, rather than one academic education lower than ordinary higher education. Therefore, in the decades of higher education reform, the Chinese government has continuously strengthened the type role of vocational education, which has made China's higher education embark on the development road of integration of general and vocational education. From the micro level, in order to cope with the supply-side reform in the rapidly developing economic field, colleges and universities must re-examine their own development orientation and redesign the talent training orientation with great foresight.

1.2 Integration of General and Vocational Education

Obviously, the cultivation of talents in colleges and universities and the development of colleges and universities themselves will inevitably take the road of higher education development with the integration of general and vocational education. At present, it is an obvious fact that vocational education and general education are connected in many countries. For example, more than 40% of the students receiving higher education in the United States study in community colleges, and the students of community colleges are allowed to selectively enter academic and elite colleges to continue their studies. Higher vocational graduates in China can also study in ordinary colleges and universities through the form of "upgrading from diploma to degree program", which forms the connection between higher vocational education and ordinary higher education [4]. In order to alleviate the huge employment pressure brought by the epidemic in recent years, China has increased the intensity of "upgrading from diploma to degree program" for several consecutive years, and at the same time, it has provided more higher vocational students with the opportunity of integrating general and vocational education. This is a typical practice of linking general higher education with vocational education. But general higher education itself is also vocational education. General (academic) education is also a vocational education, not to mention that the vocational orientation of general (academic) education like normal education and clinical medicine has been very clear. Even general (academic) education serving future research work such as mathematicians,

philosophers and physicists is also educating their future academic research occupations. The difference between general education and vocational education lies in whether it prepares directly for occupation or indirectly for employment [5]. This shows that general education contains the essential elements of vocational education. Under the current environment of general vocational enrollment expansion and supply-side reform and university transformation, colleges and universities should thoroughly implement the concept of general vocational integration, build a vocational talent training system with their own characteristics, narrow the gap between education and market, solve the current internship difficulties and employment difficulties, and provide professional talents needed by the society and the market, that is, the education of general vocational integration runs through all aspects and every process of university education, and build a general vocational integration education mechanism under the new era background.

1.3 The Orientation of Personnel Training in Private Colleges and Universities

This mechanism of integration of general and vocational education is a strategy and methodology for colleges and universities to actively respond to the impact of rapid enrollment expansion and meet the changing talent needs of society and market for many years; Since the 'Zhuzhidian Declaration', most colleges and universities have actively explored the transformation from purely academic-oriented talent training institutions to application-oriented talent training institutions[6]; This kind of effective response will eventually develop into a new type of institution of higher learning, which is different from both pure academic institutions and vocational institutions with vocational education as the core. This number will become more and more, and eventually form a development pattern of China's higher education with two small ends and a big middle [7]. As a member of these application-oriented universities, private colleges and universities must actively adjust with the whole ecological environment of China's higher education to meet the needs of their own development and training talents for China's social, economic and cultural development. It can be said that the education mechanism of the integration of general and vocational education is completely tailor-made for such universities. As an application-oriented private college, it must take market development and demand as the basic criterion in talent orientation, fully emphasize the weight of vocational education in its own education mechanism, and take the road of talent training with full integration of general and vocational education. That is, to train professionals with academic background in professional fields. Only in this way can the students of private colleges and universities fully sink and integrate into all aspects of vocational education during their school years; From freshman to senior, you can receive all-round and multi-level integration education of general and vocational education.

1.4 The Knowledge Service of Private College and University Libraries

Under the background of the integration of general education and vocational education, private college and university libraries must provide knowledge services around this education mechanism, especially serve the talent training mechanism of private college s' and universities' own. These services are shown as followings: "Borrowing books, newspapers and periodicals is the basic service of the library. It is the most basic work of college and university library to handle the supply of books, newspapers and periodicals, solve the typical problems of readers and better serve education and scientific research. Furthermore, in the era of big data, in college and university libraries other service are provided through Chinese reference rooms (including catalogues, retrieval, dictionaries, encyclopedic questions and answers, law, agriculture and other materials of various Chinese reference books), special electronic reading rooms, full-text databases of Chinese and foreign academic journals (including electronic magazines), etc. Obviously, the full-text database of

Chinese and foreign academic journals are the core data of the library. To update the database regularly, it can be searched across databases to provide users with all-round information resources. Significantly, college and university libraries all over the world have studied the practice of knowledge service. “The curriculum management service of Columbia University Library not only provides curriculum information, but also goes deep into the subject setting, the selection of educational and scientific research documents, the cultivation of students' comprehensive ability and so on. Some university libraries in China have also carried out services such as subject librarians and data reference centers” [8]. In this quotation, apart from the basic knowledge service and resource provision, the brightest thing is that the knowledge service of Columbia University Library has been linked with students' comprehensive ability. However, it is quite different from the functional orientation of the current Chinese college and university library. The current service function of college and university library in China is mainly knowledge and information service, and to some extent, it only provides auxiliary services for the current education mechanism of various colleges and universities. In the current related research, it is rarely mentioned. Moreover, it is a topic of practical significance to integrate various knowledge services of the library and directly participate in the whole education mechanism of colleges and universities in a more active and participatory way; It is not only from the perspective of the library as a department, but also from the systematic consideration of the whole education system of the college or university. Therefore, this paper puts forward to the focus on the integration of general and vocational education, take knowledge service as the main line, unite all relevant institutions of one college or university, integrate knowledge service with school education in the form of system and engineering, and establish a distinctive library knowledge service engineering system, which is an important component of school education, get rid of the traditional understanding of long-term auxiliary department positioning, and make greater contributions to library self-construction and school personnel training.

2. The Knowledge Service Engineering System of Private University Libraries Based on the Integration of General and Vocational Talents

Under the talent training mechanism of integration of general and vocational education, private college and university libraries can systematize and engineer knowledge service, instead of just a combination of scattered, independent and internal blocks in the past, they can construct knowledge content around their own school education mode and form a knowledge service engineering system. Its internal logic and framework are as follows:

2.1 The Concept---the Library Service Function of the Integration of General and Vocational Talents Training

The knowledge service engineering system of the library of Chongqing College of International Business and Economics is guided by the integration of general and vocational education, and its core function is to serve the talents training of its own college, instead of simply borrowing and returning books and providing information resources. This means actively participating in the major events of cultivating talents in its own college, providing knowledge content of integration of general and vocational education, and changing the way of providing knowledge in the form of engineering, in order to make the contribution of distinctive knowledge service to cultivating students' comprehensive vocational ability.

2.2 Content---the Knowledge Content of the Integration of General and Vocational Education

In the content of traditional knowledge service, according to the orientation of the college itself, especially the orientation of talents training, combined with its various majors and career plans, the knowledge content of the integration of general and vocational education is determined, and according to different knowledge contents, the service mode is established, and the whole knowledge service project of the integration of general and vocational education is constituted by different service modes; And serve is provided for students with knowledge in the form of engineering in stages. The contents of vocational education that need to be integrated mainly include excellent internship reports and excellent graduation theses of previous graduates; Excellent works of various entrepreneurial innovation competitions; Text and video materials of various professional competitions; Work guides and professional standards related to various majors in the college; Materials related to various invention patents of students and teachers; Materials related to major issues in the integration of teachers' production and education; Various forms of materials in college simulation laboratories. According to the characteristic knowledge service content of the library's professional library, these materials can find the integration with the department, professional field or enterprise where the major is located. In short, based on the traditional knowledge service, the library must innovate in the content of knowledge, constantly establish professional knowledge corresponding to each major, and provide corresponding professional content for students' professional education at each stage. The richness and reality of these contents, especially the lively spirit of fresh life, are incomparable to the traditional library knowledge service contents; However, this is still lacking in various libraries in colleges and universities, but it should be collected and gradually become a professional collection integrating general and vocational education, serving the important content of the whole talent training knowledge and ability system of a college or university.

2.3 Model---Knowledge Service Engineering System

Based on the above ideas and contents, the whole knowledge service engineering system is designed as follows: vertically gathering in the integration of disciplines and occupations. According to the existing professional knowledge content, the library contacts various departments, provides vocational education content at different levels in a targeted manner, and jointly seeks the content of integration of general and vocational education as the collection content. On the one hand, it can prevent students from entering the library without knowing what they should read, what specific professional abilities they need to cultivate, and how to establish their own relationship with new reading contents, so that students can consciously and systematically receive the education of integration of general and vocational education at all stages of students' growth and learning. Horizontally, it is mainly in stages, gradually advancing from freshman to senior, integrating knowledge and vocational system, and allowing students to receive systematic general and vocational integration education in stages.

From the above table 1, it can also be seen that library knowledge service is in the form of engineering system, which is set in each stage from freshman to senior. The integration of general and vocational education in each stage is carried out in the form of system engineering, including the integration of content, general education institutions such as libraries and related departments, libraries and related professional institutions, and even the integrating with standard professional certification institutions. No matter from the content, participating institutions or the scope involved, it shows that constructing knowledge service engineering in a library of a college or university is a big project, and it is necessary to coordinate all aspects in the form of a project, so that it can be continuously and effectively promoted, and truly realize the purpose of integrating general

education with vocational education in the library, a place where knowledge is transmitted.

Table 1: Knowledge Service Engineering System of College and University Library (2024)

Integration of general and vocational education Content	Library knowledge service				Engineering system	Collaborative institutions
	Freshman year	Sophomore year	Junior year	Senior year		
Major cognition	√	√	√	√	Major knowledge reading engineering	Related major departments
Professional cognition	√	√			Profession reading engineering	Relevant professional institutions matching with the majors involved
Position cognition		√	√		Position reading engineering	Relevant professional institutions matching with the majors involved
Position internship			√	√	Position simulation engineering	Relevant departments of the college with the majors and relevant professional institutions matching with the majors
Professional certification	Primary certificate (√)	Primary certificate (√)	Intermediate certificate (√)	Intermediate certificate (√)	Para-professional certification engineering	Professional qualification examination institutions and professional associations

3. Conclusion

It can be seen from the above that in the designed knowledge service engineering system of private college and university libraries based on the integration of general and vocational education, the traditional library functions have been updated. From the perspective of knowledge service, the library actively serves the orientation and training mechanism of the talents training of a college or university, and becomes an important component of school education, rather than a place to borrow and return books. Service content expands the connotation of traditional knowledge, and pays attention to providing simulation materials and real materials with lively spirit of fresh life. It can be predicted that the future library should be able to provide various forms of simulation and real materials, which are the concrete embodiment of knowledge in life, can provide students with the essential understanding and life experience of life, and the very knowledge can make students take less detours. Thus, the purpose of designing library knowledge service in the way of engineering system is to prepare expertise and professional educational materials and methods according to the orientation of cultivating students into comprehensive professional talents, and to carry out students' vocational education based on academic qualifications education such as professional cognition, professional experience and professional internship on campuses systematically and in the form of engineering. It is not a scattered and intermittent show, but an integration of all aspects of the content in the form of engineering, from low level to middle level to advanced stage, so as to advance layer by layer and integrate general and vocational education step by step, realize the expected purpose and good benefit of the engineering, and develop into a kind of education mechanism. This is actually the pre-internship method. Students' vocational education is

decomposed into each semester from freshman to senior in various ways of professional experience and internship, so as to truly cultivate comprehensive talents with both academic ability and professional position competence. On the one hand, it can solve the problem that students are difficult to find internship places, especially ones matching with their majors. On the other hand, it is also really empowering students within campuses of colleges or universities. This is a real way to solve the current employment difficulties of students. Because students are difficult to find jobs, to a large extent, students do not have the professional ability required by the market [9]. As a library playing the role of knowledge transmission, it should start to transform the knowledge into ability gradually in the process of their transmission, that is, the library should participate in the cultivation of students' comprehensive ability and become an important force for the integration of general and vocational education.

References

- [1] Xinhua News Agency. *The Entry into the Popularization Stage of Higher Education: How to Consolidate the Quality of Talent Cultivation*, 2020. Retrieved January 19, 2024, from Baidu homepage website: <https://baijiahao.baidu.com/s?id=1686114120916658669&wfr=spider&for=pc>
- [2] Shen Bin. *Guangming Times Commentary: Don't let "spending money on internships" become the first pit for college students to enter society*. *Guangming Daily*, 2021. Retrieved January 19, 2024, from Baidu homepage website: <https://baijiahao.baidu.com/s?id=1688781490021701621&wfr=spider&for=pc>
- [3] Yuan Weimin & Wang Yajuan. *The Present Academic Higher Education in the China's Supply-Side Reform*. *Proceedings of the 6th International Conference on Economics, Management, Law and Education (EMLE 2020)*, 165(Emle 2020), 2021, 591–595. <https://doi.org/10.291/aebmr.k.210210.096>
- [4] Wu Zhiqian, & Jiang Xiaoming. *Self-discussion on the Integration Issue of Vocational Education and General Education in Higher Education—An Analytical Perspective on Vocational Education*. In *Beijing Higher Vocational Education Teaching Practice and Research*, 2007.
- [5] He Yangyong. *Divergence and Integration of General Education and Vocational Education from the Perspective of Educational Equity*, 2019. Retrieved January 30, 2021, from Higher Education in Jiangsu website: <https://www.jiemodui.com/N/107643.html>
- [6] Chen Feng. *Accelerating the Exploration of Transformation and Development in Local Universities*. *China Education Daily*, p. 5, 2016.
- [7] Yuan Weimin. *The Exploration of the Relationship between General Higher Education and Vocational Higher Education in China Based on Lumann Theory and a Proposed Route to the Transformation of Chinese Higher Education.pdf*. *International Journal of Frontiers in Sociology*, 2021, 3(4), 4.
- [8] Wang Xiaohua. *Analysis of the Functional Positioning and Service Modes of University Libraries in the Big Data Era*. *Heilongjiang Education (Theory and Practice)*, 2018, 1251(7–8), 112–113.
- [9] Yuan Weimin. *Pre-internship in Chinese Translation Education at Undergraduate Level*. *5th International Conference on Education, Language, Art and Inter-Cultural Communication (ICELAIC)*, 2018, 289, 310–318. <https://doi.org/10.2991/icelaic-18.2018.70>