

Reflections on Bank Credit Certification for Vocational Education Credits

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Abstract

In 2019, the State Council issued the Implementation Plan for National Vocational Education Reform, which pointed out that the construction of national "credit bank" for vocational education should be accelerated. Starting from 2019, individual learning accounts for vocational education should be explored to realize the traceability, query and conversion of learning results. By analyzing the current development status of credit banks, this paper probes into the identification of credit banks for vocational education from the aspects of the construction of qualification framework, the establishment of expert banks, the establishment of sub-centers, the opening of credit bank accounts for students in vocational colleges and the transformation of learning results.

Keywords

Vocational Education, Credit Bank, Learning Outcome

1. Research Background

The concept of a bank: A bank is a financial institution engaged in the deposit and loan business of industrial and commercial enterprises, individuals and governments. It has a close relationship with all sectors of society in terms of capital lending and borrowing, and realizes most of the currency turnover by handling various forms of settlement business.

Explore the establishment of personal learning accounts for vocational education, realize the traceability, query and conversion of learning achievements, and orderly carry out the identification, accumulation and conversion of learning achievements embodied in academic certificates and vocational skill grade certificates, so as to broaden the channel for the continuous growth of technical and skilled talents. The "school credit bank" management system simulates or uses the bank's storage function for reference, enabling students to independently choose learning content, time and place, as well as information management for students' credit accumulation, online course selection, professional courses, student status, etc. The management system platform is an effective measure to promote the construction of a learning society of knowledge sharing, national learning and lifelong learning by facing up to and solving the deep-seated problems in the course selection system, sharing of educational resources, mutual recognition of credits, transformation system and management technology.

Industrial College is the connection point for Higher Vocational Colleges and enterprises to carry out in-depth collaborative education. It is not only the medium organism for the interaction between talent chain and industrial chain, but also the derivative new material for higher education to follow the external adaptation law. In 2020, the Ministry of Education issued the guide for the construction of Modern Industry College (Trial) (hereinafter referred to as the guide), which clearly pointed out that the modern industry college aims to cultivate high-quality applied, compound and innovative talents who adapt to and lead the development of modern industry. Its school running main body is colleges and universities with distinctive characteristics and close ties with industry, local governments, industries enterprises and other parties jointly build and manage. The guide formulated by the ministry of education for the construction of Applied Undergraduate modern industrial colleges also provides construction blueprints, ideas and methods for higher vocational colleges to build industrial college samples.

Since China's reform and opening up to strengthen economic construction, vocational education has provided strong talents and intellectual support for China's economic development. As China enters a new stage of development, industrial upgrading and economic restructuring are accelerating, the demand for technical and skilled personnel is becoming increasingly urgent, and the importance and role of vocational education is becoming increasingly prominent.

In recent years, the country's demand for technical talents has been growing, which has also greatly promoted the development of vocational education, and the enrollment scale has been expanding. The society continuously transports many talents with comprehensive application ability. And the 1 + X certificate system introduced by the state provides a new way for the construction of credit banks in vocational schools.

Based on academic qualifications, diversified and distinctive certificates have been developed to enhance students' learning self-confidence and encourage them to develop good lifelong learning habits.

In 2019, the State Council issued the National Vocational Education Reform Implementation Plan, which is a guiding document for vocational education reform in the new era. The document pointed out that "accelerating the construction of a national" credit bank "for vocational education, and starting from 2019, exploring the establishment of personal learning accounts for vocational education, so as to achieve the traceability, query and transformation of learning achievements. The identification, accumulation and transformation of learning achievements embodied in academic certificates and vocational skill grade certificates should be carried out in an orderly manner, so as to broaden the channels for the continuous growth of technical and skilled talents".

In March 2020, in accordance with the work plan for the construction of national credit banks for vocational education reviewed and approved by the inter ministerial joint meeting of the State Council on vocational education, the Working Rules for the Construction of National Credit Banks for Vocational Education (for Trial Implementation) (Jiao Zhi Cheng Si Han [2020] No. 9) was formulated. Therefore, it is of practical significance to explore the construction of a credit bank for vocational education and to realize the certification, accumulation and transformation of learning achievements embodied in academic certificates and vocational skill grade certificates.

2. Development Status of Credit Bank

The "credit bank" simulates and draws lessons from the "storage extraction" characteristics of the bank, and takes credit as the basic unit, so that learners' learning achievements at all levels and at all levels can be assessed by experts for certification, accounting and conversion. The credit bank system is a new learning system and educational management system with the functions of credit recognition, accumulation, conversion and application. Credit banks can provide certification, accumulation and transformation services for learning achievement carriers.

The "pawnshop" function authenticates different types of learning achievements one by one. Learning achievement carriers can apply for learning achievement certification at the nearest learning achievement certification center and sub center (certification point). The staff shall screen and review the learning achievements certified by the e-application, and issue a learning achievement conversion certificate if they meet the relevant conditions.

"Storage" function 1 establishes credit bank accounts for learning achievement carriers to accumulate learning achievements. Carriers of learning achievements can apply to establish credit bank accounts through mobile clients, personal computers or certification service institutions, and accumulate learning achievements. At this time, the accumulation of learning achievements can be divided into two situations: one is the situation where there is a need for conversion, in which case, the learning achievements will be converted into academic education or non academic education credit after certification; The other is the case of pure accumulation of demand. In this case, the learning achievements are converted into standard chemical scores according to the one-to-one credit rules and stored, mainly to serve the learning organization and learning society.

The "conversion" function is to handle the achievement conversion business for the learning achievement carrier. The learning achievement carrier applies for credit conversion at the corresponding certification authority by virtue of the learning achievement conversion certificate issued by the credit bank, that is, converting—or several kinds of learning achievements into the corresponding credits of the corresponding learning achievements of another certification authority, so as to achieve the "exemption from study and examination" of the corresponding credits.

"Consulting" function—one is to provide ability evaluation and learning guidance services for learning achievement carriers. Carriers of learning achievements can get relevant services by leaving messages at certification service institutions or information platforms for consultation. These services can help learners to formulate learning plans, provide guidance for learners on learning paths, and guide learners to follow the optimized path to obtain another qualification. Learners can also test their abilities through the information platform to obtain career planning and employment services.

2.1. Development Status of Credit Banks Abroad

At present, many countries have actively explored and practiced the mutual recognition and transfer of credits. The credit connection and transfer policy in the United States is mainly carried out between two-year community colleges and four-year universities; The European Union has established the higher education credit system ECTS and vocational education credit system ECVET. In Germany's "dual system" education, 210 credits for undergraduates can earn a bachelor's degree. On this basis, 90 credits can earn a master's degree. With uniform standards, students from EU countries can obtain academic certificates through mutual recognition of credits between different countries. The Australian Qualifications Framework (AQF), the Australian Qualifications Framework, connects 15 types of school education, vocational education and university education qualifications in a national system, and has become the basis of the entire system.

2.2. Research Status of Credit Bank in China

In 2010, our country put forward in the Outline of Education Development that "establishing a learning achievement certification system, establishing a 'credit bank' system, establishing a credit accumulation and conversion system for continuing education, and realizing mutual recognition and convergence of different types of learning achievements". In June 2012, the Ministry of Education set up projects such as "Research and Practice on the Certification, Accumulation and Transformation System of National Continuing Education Learning Achievements", requiring the National Open University to organize research and try first. On November 11, 2013, the institutional framework, institutional model and the core mechanism of the system—learning achievements framework and its application path were initially formed. On July 1, 2014, the construction of the credit bank information platform of the National Open University was officially launched, which is one of the important infrastructures to achieve the cer-

tification, accumulation and transformation of learning achievements. The credit bank platform of the National Open University was first developed and has been put into operation since 2015, supporting users to open accounts, accumulate and convert. At the same time, the construction of tuition banks has been carried out in various provinces throughout the country. By May 2019, more than 940,000 learners in Shanghai had opened bank learning accounts for lifelong education credits, and about 630,000 learners in Jiangsu Province had opened bank learning accounts for lifelong education credits (Chang, 2020). In 2019, the Work Plan for the Construction of Chongqing Lifelong Learning Credit Bank was issued, which launched the application of credit bank sub centers for colleges and universities across the city, and gradually completed the construction of regional credit banks, mainly including academic education credits, vocational training learning achievements, and cultural and leisure education.

3. Credit Certification of Vocational Education Credit Bank3.1. The Construction of Credit Bank Qualification Framework

The qualification framework first appeared in the UK, and its main function is to compare various vocational certificates with academic certificates. By 2019, more than 150 sovereign countries (regions) in the world have established national qualification frameworks. During the "13th Five Year Plan" period, the Chinese government began to clearly propose the national qualification framework.

The qualification framework is the basis of credit certification, which is based on the qualification grade and the general standard of grade (Zhang, 2019). The credits of the 1 + X certificate learning achievement certification completed under the qualification framework can be successfully transferred to other types of learning achievements under the qualification framework. 1 + X vocational skill grade certificate belongs to the learning achievements of non academic education. To complete the conversion between it and academic education achievements, two learning achievements must be recognized under the same qualification framework. Therefore, the certification of learning achievements is a mechanism that allows learners to obtain knowledge, skills, abilities, etc. through multi-channel learning, according to the levels and standards of the qualification framework, through the review and recognition of authoritative institutions.

At present, regional qualification frameworks with local characteristics are being constructed in various regions. Take Chongqing as an example to establish a regional "qualification framework" based on big data and artificial intelligence and market demand. Only the talent ability evaluation standard recognized by the market can become the passport of the employment market. When Chongqing formulates the credit bank qualification framework, it employs authoritative experts from various industries, experts from industry associations, and senior managers of leading enterprises to participate in the construction. This combination with the market will also lay a good foundation for the subsequent conversion of credits of credit banks. The collection of regional employment big data makes the "qualification framework" of credit banks in this region more authoritative. Relying on big data and artificial intelligence, analyze and collect the employment requirements of different industries and positions from the talent recruitment website, build a big data platform that matches the vocational education talent training program with the enterprise's post needs, and carry out continuous dynamic and intelligent matching. This approach has laid a good foundation for the qualification docking and credit mutual recognition of vocational education and training in southwest China and countries along the "the Belt and Road", and accumulated valuable experience for forming a qualification framework of international docking, Chinese innovation and local application.

3.2. Establishment of Expert Database and Establishment of Criteria for Identifying Different Types of Learning Achievements

Establish expert database. Establish various professional certification expert committees of learning achievements composed of multiple authoritative experts to promote the credit certification and conversion of various learning achievements in combination with the pilot system. This institution can serve as a subordinate institution of the regional bank certification committee for lifelong learning credits, undertake the consultation, guidance, evaluation and other matters of the bank's learning achievement certification standards for lifelong learning credits, and provide professional consultation for the certification and conversion of learning achievements, Complete other work assigned by local lifelong learning credit bank.

At the same time, experts are selected from colleges and industrial enterprises to form special committees according to the pilot system of various learning achievements and the specialty setting of higher vocational colleges. The expert committee consists of agriculture, forestry, animal husbandry and fishery, resources, environment and safety, energy, power and materials, civil construction, water conservancy, equipment manufacturing, biology and chemical industry, light industry and textile, food, medicine and grain, transportation, electronic information, medicine and health, finance and commerce, tourism, culture and art, news communication, education and sports. There are 19 groups, including public security and justice, public management and service, and each group is composed of 3 - 12 experts according to the pilot situation of each major category. The composition of the special committee will be dynamically adjusted according to the progress of learning achievements.

The credit bank certification standard is the reference and basis for the realization of certification, accumulation and transformation of learning achievements. The certification standard is realized through each individual certification unit. With the expansion of the scope of learning achievements recognized by credit banks, each type of learning achievements and the recognized scores of different grades are different. The experts from all disciplines of the expert committee and the education management discipline will work together to develop a standard catalog of the recognition scores for each type of learning achievements.

3.3. Establishment of Branch Centers and Opening of Credit Bank Accounts for Vocational College Students

Establishment of branch centers. At present, regional bank sub centers are mainly composed of regional sub centers and institutional sub centers. The regional sub centers are constructed according to the administrative regions, and are mainly responsible for providing lifelong learning services for citizens and institutions within their own administrative regions, including the filing of lifelong learning files, certification and conversion of learning achievements, etc; According to the nature of the institution, the branch centers of institutions can be divided into two categories: university institutions and enterprise institutions (Cheng & Xu, 2021). University institutions are mainly applied to colleges and universities, and mainly provide lifelong learning services including lifelong learning file building, learning achievement certification and conversion, etc. for their own learners, namely academic education institutions.

Centralized opening of credit bank accounts of vocational college students. Each higher vocational college is an institutional sub center of a credit bank. The school organizes students to complete credit bank account opening, which greatly saves the process of student information identification. Students in higher vocational colleges enter the school from formal examinations. The school has correct learning information. Open administrator accounts for each higher vocational college and directly import them to the credit bank platform to complete the account opening.

3.4. Entry of Learning Achievement Scores in Vocational Colleges

Certificates such as vocational training shall be demonstrated by the credit bank and entered into the list of certificates such as vocational training of the credit bank. The learner shall submit an application for recognition with the certificate in the list and deposit it in the credit bank after being recognized by the credit bank. Vocational colleges and universities shall unify the credit and bank scores of certificates according to the recognition criteria of different types of "X" certificates. The credit bank administrator of the university can also import the 1 + X certificate of the university into the platform at one time. The management of credit bank in higher vocational colleges will be more formal, concise and efficient than that of cultural leisure credit recognition and enterprise organization in the face of society.

3.5. The Conversion of Learning Achievement Scores in Credit Bank

The transfer of learning achievements of credit bank involves undergraduate

education, higher vocational education, technical secondary school education, non academic community education, elderly education, industry training, skill certificates, etc. The recognition standards are established through the credit bank as a link to establish the integration and connection between various qualifications at all levels. For vocational college students, the type and direction of conversion will be determined based on the scores of students in the credit bank. The conversion and application of 1 + X credit scores of students in higher vocational colleges are mainly implemented in the following aspects:

First, the substitution of relevant professional courses during school. The transformation mode that has existed and been applied in higher vocational colleges. There are mainly the following categories: students who have retired from the military can apply for exemption from experience courses, military theories, and military training courses, with good records. Students who have won the first, second and third prizes of the national level in skills competitions will receive credits for elective courses or professional elective courses respectively; Students who have won the first prize, the second prize and the third prize of the Municipal Education Commission will receive credits for elective courses or specialized elective courses of the whole hospital respectively; The credit accumulation and transformation management of innovation and entrepreneurship achievements. The credit of innovation and entrepreneurship achievements refers to the credits that students obtain after being recognized by the university based on the intellectual labor achievements or other outstanding achievements and engaging in scientific and technological competitions, innovation and entrepreneurship practices, and vocational qualification examinations according to their own strengths and hobbies during the school year. The 1 + X certificate learning achievement score launched from 2019 will also replace individual course credits. The grade of learning achievements in vocational education is not only the certificate of students' vocational skill level, but also the comprehensive level of students' professional activities and career development.

The second is the application of upgrading from technical college to undergraduate. At present, the upgrading of vocational college students to undergraduate level mainly refers to the students who have won the second prize or above in the National Vocational College Skills Competition, the National Electronic Skills Competition and the National Innovation and Entrepreneurship Competition, and can be interviewed for admission when upgrading to undergraduate level. After the students' learning achievement scores reach a certain level, they can also consider the scores of the students who have been upgraded from junior college to undergraduate.

Third, talent settlement points. At present, many large cities have the system of talent settlement points. In order to broaden the development path of vocational education students, in addition to the scores of academic certificates, the scores of learning achievements accumulated in the vocational education credit bank can also be converted into appropriate credits, which facilitates

the settlement of vocational education students, and can also cultivate more technical talents for the development of local cities.

Fourth, the reference score of the civil service examination. The Implementation Plan of the National Vocational Education Reform clearly states that "actively promote vocational college graduates to enjoy the same treatment as ordinary college graduates in terms of settlement, employment, participation in recruitment of government institutions, professional title evaluation, promotion of professional rank, etc. Gradually improve the income level and status of skilled people, especially technical workers. The recruitment of personnel by government institutions and enterprises and institutions shall not discriminate against vocational college graduates. "Students of higher vocational colleges enjoy equal treatment in taking part in the civil service examination. Especially in basic government organizations and villages and towns, a large number of basic and skilled civil servants are needed to drive the local economic development. Therefore, the civil service examination in some regions can be adopted, and part of the learning achievements of higher vocational students can be converted into a certain score in the civil service examination.

4. Conclusion

The credit bank system is the basic platform for the recognition and implementation of learning achievements in vocational education. Although the construction of the national qualification framework has not yet been completed, the credit transfer categories and regions still have limitations, there are still barriers to credit transfer between different levels of colleges and universities, and the degree of enterprise cooperation and participation needs to be improved, it is believed that with the formal completion of the national qualification framework, these problems will be solved one by one. Build a credit bank for vocational education, broaden the channel for the continuous growth of technical and skilled talents, cultivate more promising young people for national development, and enhance China's comprehensive international competitiveness.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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