

Analysis of the Effective Connection and Development between Secondary Vocational Education and Higher Vocational Education in Jilin Province

Zhuang Zhao^{1*}

¹ College of Economics and Management, Jilin Engineering Normal University, Changchun, China

Email Address

316891748@qq.com (Zhuang Zhao)

*Correspondence: 316891748@qq.com

Received: 29 November 2025; **Accepted:** 15 December 2025; **Published:** 18 January 2026

Abstract:

At present, Jilin Province of China has 329 secondary vocational schools with more than 150,000 students, and 23 independent higher vocational schools with 114,000 students. Jilin Province basically formed a secondary vocational education-based, primary, secondary and higher link-up, General Vocational Communication of the framework of the vocational education system. However, the transition of higher vocational education is still at a groping stage, which needs further reform and improvement. On the basis of previous studies, this paper focuses on the effective link-up of secondary and higher vocational education, taking the link-up system of vocational education and the link-up of curriculum system as a breakthrough, to explore the concrete countermeasures to overcome the obstruction of the vocational education system. First, it introduces the current situation of the development of secondary and higher vocational education in Jilin Province, then analyzes the current situation of the link-up of secondary and higher vocational education in Jilin Province, and then finds out the problems existing in the link-up process of secondary and higher vocational education, finally, this paper puts forward some countermeasures for the effective link-up of higher vocational education in Jilin Province of China.

Keywords:

Secondary Vocational Education, Higher Vocational Education, Effective Connection, Current Situation, Countermeasures

1. Introduction

With the development of Knowledge Economy and the pace of economic globalization, the International Division of Labor is becoming more and more fine, and the competition among the Comprehensive National Power is becoming more and more fierce. As one of the most important parts of China's education, the vocational education plays an important role in the development of China's economy, said Comprehensive National Power, director of the vocational education, it also plays an

important role in promoting China's international competitiveness. However, despite the rapid growth in the number and scale of vocational education in China, the vocational education has not been effective in improving the quality of the workforce, and the graduates of vocational colleges are still not fully recognized by the society. One of the reasons is that there are certain problems in the connection of China's secondary and Higher Vocational Education System at present: for example, the channels for students to study in secondary and higher vocational schools are not extensive, and the chances of secondary and higher vocational students being admitted to higher vocational schools are very slim, it can not be transferred to General Education, the channel of transferring higher vocational education to General Graduate Education is not clear, the development scale and speed of vocational education are too fast, and there are problems in the connection between vocational education and society, etc. .

By the end of 2019, Jilin Province had 329 secondary vocational schools and 23 independent higher vocational colleges. The study of the connection between the secondary and higher vocational education in Jilin Province will not only provide a theoretical basis for the construction of a well-structured vocational education system in Jilin Province, but also contribute to the enrichment of the vocational education theory, integrating educational resources to promote the harmonious development of society. In practice, we can find out the problems of system and curriculum in the connection of vocational education system in Jilin Province, and put forward corresponding countermeasures, so that vocational education can better serve the development of economy and society in Jilin Province of China.

1.1. Significance of study

To study the development of the link-up of secondary and higher vocational education in Jilin Province, China, and to establish a scientific link-up model of secondary and higher vocational education in Jilin Province, promoting the development of the vocational education has important theoretical and practical significance for the education and economic development of Jilin Province.

1.1.1. Theoretical significance

First, we should adjust the structure of the vocational education so that the vocational education structure can be adapted to the structure of social development and provide a theoretical basis for the construction of a well-structured vocational education system. The purpose of this paper is to explore a reasonable connection model between secondary vocational education and higher vocational education, so that secondary vocational education and higher vocational education can effectively link up, thereby increasing the opportunities for students in vocational education to continue their studies and expanding the channels through which they can continue their studies, the vocational education has formed a multi-level, multi-dimensional lifelong education system from lower to higher levels, from school education to social education.

Second, it helps to enrich the vocational education theory. At present, the research on the connection of vocational education, especially on the connection of curriculum, is backward in China, and the research on the curriculum theory of vocational education is also backward compared with that of general education. At present, China proposes to construct the educational system of linking up the secondary and higher vocational education. The curriculum is the final aim of educational linking up.

The research on the curriculum linking up of the vocational education is conducive to exploring the effective way of vocational education linking up, so that the vocational education curriculum link from the form of the link to the deep-seated connotation of the transition, so as to improve the vocational education link system.

1.1.2. Practical significance

First, this study makes a systematic analysis of the current situation of vocational education system in Jilin Province, China, and finds out the problems existing in the system and curriculum in the connection of secondary higher vocational education system in Jilin Province. Targeted specific scientific advice and countermeasures, in order to promote China's Jilin province vocational education on the system to connect and unobstructed, is a professional education on the scale of higher education gradually standardized, diversification, rationalization, can carry on the curriculum development science, in terms of curriculum, construct reasonable curriculum system to form a new vocational education curriculum.

Second, it is conducive to promoting the healthy development of vocational education in Jilin Province, and can effectively integrate educational resources of the whole province. According to the economic and social characteristics of Jilin Province, a structural system of vocational education suitable for the development of Jilin Province can be constructed, so that vocational education can serve the development of the province's economy and society.

1.2. Project Statement

In the twenty-first century and twenty years, the pace of economic globalization is getting faster and faster, the international division of labor is getting more and more detailed, the speed of science and technology renewal is also getting faster and faster, the competition of various comprehensive national strength is increasingly fierce, the competition of comprehensive national strength mainly depends on the national economic strength. Vocational education, as the most direct and closely related part of education, plays an important role in the development of economy. Western developed countries actively promote the reform and development of vocational education, and raise vocational education to a strategic height, and bring vocational education into the whole national development system, as an important way to enhance the comprehensive national strength, and keep the country in a favorable position in the competition of economic globalization. As one of the most important links in China's education to cultivate professional talents, vocational education plays a pivotal role in the development of China's economy and also plays an important role in improving China's international competitiveness.

In recent years, secondary higher vocational education in Jilin Province of China has achieved rapid development. In 2012, Jilin Province took the lead in building the only vocational education museum in China. The secondary vocational schools have established 104 provincial-level demonstration majors and 167 provincial-level excellent courses. The employment rate of graduates continues to rise, and the primary employment rate of secondary vocational school graduates will reach about 96% in 2019. However, there are still some problems. On the basis of studying the current situation of vocational education development in Jilin Province, this paper analyzes the current situation of the connection between middle and higher vocational education in Jilin Province, and then analyzes the problems existing in the process of

vocational connection, and finally puts forward the countermeasures of the connection between middle and higher vocational education in Jilin Province.

1.3. Organization of Project

This project is divided into six chapters. The first chapter briefly introduces the writing significance, problem statement and general organization of this research topic. The second chapter is the literature review of the research on the connection of secondary higher vocational education at home and abroad. The third chapter introduces the present situation of secondary higher vocational education in Jilin Province. The fourth chapter mainly analyzes the current situation of the connection of secondary higher vocational education in Jilin Province. The fifth chapter is the main part of this paper, on the basis of the analysis of the current situation of the linkage of secondary higher vocational education in Jilin Province, it focuses on the exploration of the problems existing in the process of the linkage of secondary higher vocational education. Chapter six, put forward the countermeasures of effective job cohesion in middle higher vocational education in Jilin Province. Chapter 7 is a natural conclusion.

2. Literature Review

2.1. Introduction

In the 21st century, with the advent of economic globalization and information society, higher requirements are put forward for the comprehensive quality of workers. The vocational education of all countries in the world has been gradually adjusted and consolidated in the process of development, so that the development of vocational education can adapt to the political background, economic development level and cultural tradition of each country. The research on the theory of linkage of vocational education at home and abroad has also achieved fruitful results. In the process of vocational education in foreign countries, the research on the connection of vocational education has been widely concerned both in theory and in practice. In the process of education connection, the reform measures and forms of some developed countries are not the same, but the overall development of vocational education is diversified, flexible, open, and multi-level trend. Foreign middle and higher vocational colleges pay more attention to the connection of courses. For example, Australia's national training package, France's course classification and connection method, Germany's dual system and spiral course connection method, and Britain's unit connection method, etc. In recent years, some policies issued by China have put forward the construction of vocational education system, and the connection of the structural system of vocational education has become a hot topic for scholars. Although Chinese scholars started to study the linkage system of vocational education relatively late, they also expounded their views from different perspectives.

2.2. Literature review

There are studies on the connection between middle and higher vocational titles. In Europe and the United States and other economically developed countries and regions, the study started earlier, starting from about the early 1960s. In the continuous exploration and practice, many theoretical systems of middle and higher vocational titles with unique characteristics have been formed. To sum up, the more developed countries in the West pay special attention to the core and entry point of intermediate

and high level convergence. Represented by Germany advanced Western Europe and the United States, they put the vocational education as an important means of economic development, according to the speed of national economic development can be concluded that the role of vocational education in economic construction, how to construct and the development of vocational education system is the various countries in the aspect of education and economic development of important research focus. The famous psychologist Jean Piaget proposed that each individual in the process of adapting to the environment is in accordance with certain cognitive procedures, these cognitive procedures have certain rules, and change with the growth of knowledge and age of the parties. From this perspective, Err from Germany pointed out that in view of the development law of human cognitive ability, middle and higher vocational students are in a period of drastic changes in the development of cognitive ability. Therefore, special attention should be paid to the connection between the learned knowledge and the course to make the connection of the course conform to the law of human cognitive ability. French researcher DeRob also proposed that the cognitive ability of middle and higher vocational students has obvious stages, and the corresponding curriculum arrangement must also match with it, showing a certain stage.

In western economically developed countries, there are mainly three modes of vocational education connection: The first pattern is general education and vocational education connection mode, using the model of state is given priority to with Britain and Australia, this kind of mode is mainly of professional qualification certificate system, national recognition at the same time general education diploma and various level of professional qualification certificate, the two kinds of education has the equal right to education and employment, vocational education students can continuously passed all levels of professional qualification certificate to get the right to receive higher education further. In Australia, for example, the main development training courses, so as to realize the cohesion, secondary vocational education and higher education, of course, on the training set to have a progressive and gradation, the main characteristic of this model is that in order to make the secondary vocational school graduates with considerable degree of average high school level, a vocational education institutions for these students to carry out targeted training and tutoring, achieve the goal of higher education in the cohesion. The second model is that Germany, represented by Germany and France, adopts dual vocational education. The vocational education of this mode is characterized by a spiral cycle in the setting of the teaching system and a ladder comprehensive management mode in the curriculum setting. In France, curriculum classification is adopted to realize the connection between secondary vocational education and higher vocational education, and students are taught secondary vocational education courses according to different occupations. At the same time, secondary vocational education curriculum is the foundation of higher vocational education curriculum, which can fully realize the course connection between secondary vocational education and higher vocational education. The main method of course linkage is to ensure the minimum teaching hours of related majors at different levels of linkage. Second, the teaching hours of specialized courses and general cultural courses must also reach the minimum teaching hours. Students in the vocational qualification certificate at the same time also guaranteed a certain number of general education hours, for the students to enter the future study of vocational education to lay the foundation. The third model is the course linkage model represented by the United States and Russia. The main feature of this model is to realize the integrated design of the courses of secondary vocational

and higher vocational education through the syllabus and the course linkage to ensure the implementation of secondary vocational and higher vocational education.

From the above models and methods of the connection between middle and higher vocational education in developed countries, we can see that the core of the connection between middle and higher vocational education is the connection between courses.

At present, the research of domestic researchers on the connection of vocational education is also conducted on the basis of several theories. With the rapid development of China's vocational education, more and more scholars begin to pay attention to the development of vocational education. In recent years, some policies issued by China propose to build a vocational education system, and the connection of the structural system of vocational education has become a hot topic of scholars' attention and research. Although Chinese scholars started to study the linkage system of vocational education relatively late, they have elaborated their views from different perspectives. Scholars first theoretically explored the basis for the connection of vocational education to lay a theoretical foundation for the construction of vocational education system. The representative scholars are Liu Chunsheng and others, who seek the theoretical basis of the connection between middle and higher vocational education and the development law of the connection between vocational education from the perspectives of pedagogy, psychology and economics. He embarks from the pedagogy and psychology, and points out that higher vocational education is a kind of comprehensive education, combining the advanced scientific and cultural knowledge and professional theory, advanced skills, while learning requires students have certain preparation, and the preliminary principle requirement of secondary vocational education for higher vocational education to be prepared for the necessary knowledge and skills to learn, at the same time, the continuation and development of higher vocational education to promote sustainable development of the person's full scale, some scholars research from economic Angle, pointed out that vocational education has trained a large number of qualified labor for the society, the human resources into human capital, Improving the skill level and level of labor force can improve labor productivity and promote economic growth. All these clearly point out that the law of human cognition development and the law of motor skill formation, the principle of benefit maximization and the concept of lifelong education are the theoretical basis of vocational education convergence.

2.3. Summary

From the development level of vocational education in the above foreign developed countries, we can see that the development and improvement of foreign vocational education system is attributed to the strong support of the government, which not only keeps up with The Times in terms of policies, but also provides a large amount of financial support. Pay attention to the connection between vocational education and enterprises, and give full play to the mutual promotion effect of technological update on vocational education and enterprises; Countries have established multi-level, multi-specialty and multi-mode vocational and technical education systems suited to their national conditions. In the course of curriculum reform, we should pay attention to the guiding role of market and the comprehensive development of students. The excellent achievements in the development of foreign vocational education are worthy of reference for China's vocational education.

In recent years, Chinese scholars have made some achievements in the research on the linkage of vocational education. They tried to from the perspective of philosophy, sociology, psychology and other science to seek the theoretical basis to solve the problem of vocational education cohesion, on the problems existing in the vocational education cohesion, admissions policy, management, teaching research, from the education system, legal system, sensors and actuators, curriculum system, how to construct vocational education cohesion system put forward the countermeasure and suggestion. However, there are still some problems in the current research: the current research covers a wide range of fields and lacks a focused research direction; the research on the linkage theory of vocational education system is still weak; and the research on the linkage policy of vocational education focuses on the thinking at the macro level.

3. Policy Evolution of Secondary and Higher Vocational Education Convergence in China

China's vocational education has a history of more than one hundred years since the China Vocational Education Association was founded by Huang Yanpei, an older generation of vocational educationists. From the early years of the republic of China, called on the vocational education should be “for the development of personality, for personal livelihood, serve the society well prepared for the individual, for the country and promote the productivity of the world” and “happily unemployed have industry, with industry”, to build the grand blueprint of modern vocational education system in our country, to realize the great rejuvenation of the Chinese nation, promote the development of society and human, Vocational education plays an indelible role.

In New China, the Communist Party of China and the state have paid great attention to the development of vocational education. With the adjustment of economic structure, vocational education has been constantly adjusted and developed. Historically into the 1980 s, China's central government is more attention to the development of vocational education, continuously put forward new planning and policy, the escort for vocational education, it is not only prompted to get high speed development of vocational education in the level of, and makes the form of vocational education in school-running level, type, such as increase in quality with full development. As an endogenous demand of vocational education, the connection between secondary and higher vocational education is also taking root and germinating with the development of national economy. Entered 21st century of a new, rapid progress in science and technology, economy to accelerate continuously, the adjustment of industrial structure upgrading of technology and innovation, the technology of high quality technical and applied talents both in quantity and quality put forward higher request, the traditional “sleepy” secondary vocational education and higher vocational education has been unable to meet the social development of the technology, talent, Nor can it cope with the vocational students' desire for learning and acquiring new technologies and skills. Therefore, the convergence of secondary and higher vocational education can not only alleviate the contradiction between talent supply and demand, adapt to the needs of the transformation of economic development mode and the adjustment of industrial structure, but also meet the diversified needs of people's own development, promote the popularization of higher education and realize the diversified development of vocational education. The connection between secondary and higher vocational education is the premise and foundation of establishing China's modern vocational education system. Review of

China since the reform and opening up 30 years, China's secondary and higher vocational education policy and the history of the file, cohesion is roughly showed the following characteristics, scope of implementation make the transition from the form to the essence of cohesion, policy content make the transition from macroscopic to microcosmic, from independent on the value orientation, development to the transition of the balanced development.

In terms of the degree of development of the cohesion, vocational education at all levels can be divided into three stages: initial cohesion, slow development stage (1985-1998), accelerated cohesion, rapid development stage (1999-2002) and optimized cohesion, leap development stage (after 2002). From the key core of "establishing and improving the curriculum connection system of vocational education" and the overall situation of building a modern vocational education system, the stage of the connection between middle and higher vocational education in China can be divided into three stages: The stage of constructing the linkage system between vocational education system and middle and higher vocational education (since the reform and opening up to 2002), the stage of constructing the linkage system between modern vocational education system and middle and higher vocational curriculum (from 2002 to 2010), and the stage of constructing and improving the linkage system between modern vocational education system and middle and higher vocational curriculum (after 2010).

Of course, each stage of the connection of vocational education cannot be viewed in isolation. Vocational education is always integrated in the process of development, so each stage also intersects and connects with each other. The state's policy support for the connection between middle and higher vocational education also reflects the gradual development of the connection between secondary and higher vocational education.

From the evolution and development of the main policies on the connection between secondary and higher vocational education in China, we can find that the connection of secondary and higher vocational education in China presents its own complexity and particularity, and is gradually open and inclusive under the influence of the popularization of higher education and the trend of lifelong education. Vocational education has moved forward from a simple "employment education" to an educational form with the dual goals of "employment and higher education". The connection of vocational education at all levels has been piloted from a small scale to a modern vocational education system being actively promoted nationwide. In the 1980s and 1990s, China put forward a basic framework for the development of vocational education and confirmed the important position of higher vocational education. In particular, the 1985 Decision of the CENTRAL Committee of the COMMUNIST Party of China on The Reform of the Education System set out from the establishment of the "vocational and technical education system" and proposed that higher vocational and technical colleges should give priority to the recruitment of secondary vocational school graduates, which provided a policy basis for the connection between middle and higher vocational schools and realized formal integration to a certain extent. In 1994, The State Council's opinions on the implementation of the Outline of China's Education Reform and Development clearly stated for the first time that different levels of vocational and technical education should be connected with each other, which further pointed out the direction for the construction of a modern vocational education system. The Vocational Education Law of 1996, for the first time in the legal form, stipulated the content of China's

vocational education system and the relationship between the vocational education system and other education. In 1999, the Action Plan for Revitalizing Education towards the 21st Century put forward the concept of building a “flyover bridge” for vocational education for the first time, connecting secondary vocational education with higher vocational education and extending the connection between vocational education and ordinary higher education.

From 2000 to 2006, China’s vocational education began to enter the climax of development, expanding the proportion of secondary vocational students to study in higher vocational colleges, while higher vocational college students also have the opportunity to study in undergraduate universities. “Promulgated in 2002 the State Council about to promote the development of vocational education reform and decision” is for the construction of modern vocational education system with milestone significance policy document, first proposed the “modern vocational education system” and the concept of “the five-year higher vocational”, at the same time for the first time made clear “secondary vocational education and higher vocational education of corresponding course system”, It also expands the connotation of the concept of “vocational education overpass”. In 2007, the Ministry of Education issued a Notice on Further Improving the Management of Various Enrollment In Institutions of Higher Learning.

Make the connection between higher vocational, higher vocational and undergraduate, college channel contraction, the requirements of “ordinary upgrade this recruitment plan by not more than that year ordinary higher vocational (college) graduates 5% of the proportion arrangement; The five-year higher vocational enrollment plan (enrolling junior high school graduates) shall be arranged in proportion not exceeding 5% of the general higher vocational (junior college) enrollment plan of that year; The plan to recruit secondary vocational graduates from colleges and universities should not exceed 5% of the current year's secondary vocational graduates.” But it also urges secondary and higher vocational education to calm down and think about the standard of vocational education and return to the purpose of “employment-oriented” education and training.

Starting in 2010, the higher from building height of “the development of modern vocational education system” is put forward, the vocational education in the strategic position in the economic and social development and education work more highlights, secondary rise, rise the undergraduate course of higher vocational limits a bit, parts to carry out the “pilot project of modern vocational education system”. In 2011, the two documents on the connection between secondary vocational education and higher vocational education pointed out for the first time the development direction and realization path of the connection between middle and higher vocational education in the form of special documents -- the “leading” role of higher vocational education. At the same time, the curriculum, training objectives, professional Settings and other core aspects of the connection between middle and higher vocational education have been made more detailed and clear standards.

4. Necessity and Possibility of Connecting Secondary and Higher Vocational Education

At present, there are more and more comments and discussions on the connection between secondary vocational education and higher vocational education in China, focusing on the unsmooth connection, unclear positioning of secondary vocational

education and higher vocational education, curriculum convergence content repetition and so on. Many secondary vocational schools and vocational colleges is only based on his analysis of the policy and the education concept planning education teaching work, there is no further think about their place in the vocational education or that of vocational education the role of overlapping relationship, lead to students' professional quality is not high, lack of career planning, promotion path eventually led to the students. This leads to the lack of sustainable development of secondary vocational students, and the lack of high-quality vocational education students in higher vocational colleges, resulting in a variety of problems in the connection between middle and higher vocational education. The connection between middle and higher vocational education is the general trend of today's vocational education. Through the connection, the scattered secondary and higher vocational education can be combined as a whole, bringing more significant social and economic benefits into play, and laying a solid foundation for the transformation of China's talent structure and the transformation from a talent country to a talent country.

4.1. Necessity of linking secondary and higher vocational education

(1) The connection between middle and higher vocational education is to improve the vocational education system, which is in line with social development and the realistic needs of people.

Since the 21st century, with the development of new industrialization, the industrial structure from labor-intensive to technology-intensive, capital-intensive rapid transformation, many old industries and increasing the technology content of new industry, producing a large amount of application of high and new technology or new jobs, the characteristic of compound is expanded to have received higher education, to master the system theory knowledge, Advanced technical talents with innovative spirit, design ability and organizational ability, and able to operate independently are needed. Secondary vocational and technical colleges can not fully meet the needs of China's economic development, and the lack of advanced technical talents has become a bottleneck restricting China's economic development. With the continuous improvement of Chinese residents' material living conditions, people begin to pay attention to the enrichment of spiritual life, expect to realize high-level and high-quality spiritual pursuit, and pay attention to the full development of individual potential. People's need for vocational education is no longer for the purpose of making a living, but gradually begin to pay attention to self-realization. Since China stepped into the stage of building sustainable development and harmonious society, "people-oriented", "coordinated development" and "sustainable development" have become important strategic means of China's development, and vocational education has become one of the important means to achieve the goal. According to the Outline of China's National Plan for Medium - and Long-term Education Reform and Development (2010-2020), "by 2020, a modern vocational education system that ADAPTS to the transformation of the mode of development and the adjustment of economic structure, embodies the concept of lifelong education, and balances the development of secondary and higher vocational education, meets the needs of the people for vocational education. To meet the needs of economic society for high-quality workers and skilled talents". China's understanding of the importance of vocational education continues to improve, vocational education is no longer a low-level vocational training, and its functions are gradually expanded and its level is gradually improved. In terms of development mode, vocational education follows the

law, and the goal is not only to pursue the harmony between the overall educational structure and economic development, but also to meet the needs of human development.

(2) The connection between middle and higher vocational education is an important measure to enhance the attraction of vocational education and construct a modern vocational education system.

As a type of education, vocational education itself has the basic attribute of educating people that any form of education should have. At the same time, it also has the unique attribute of “vocational orientation” that is different from other types of education. It is precisely because of the dual nature of vocational education that it imparts the basic skills necessary for production and life in the process of educating people that vocational education has more utilitarian practical value and has been paid attention to by people. At the same time, the “productivity, sociality and professionalism” reflected by vocational education in the process of running a school is the reason that makes vocational education attractive. First of all, vocational education should be run in accordance with the law of social production and development, the needs of industrial talents and the requirements of industrial norms, and should be based on the needs of social and economic development in setting up courses, implementing teaching, setting training objectives, positioning talents and other aspects. Secondly, vocational education has the function of “career orientation”. When choosing a certain occupation, students should have a plan for their career development, understand the needs of social development, integrate into social production as soon as possible, and realize their social value.

Of course, any form and content of education are limited, and career planning is also carried out in stages. In this way, vocational education in secondary, higher vocational and even undergraduate stages can be connected with each other, so that vocational education can not only meet the employment needs of students, but also realize the two-way choice of further study. Distinguish between all levels of vocational education training objectives, can not only cultivate the social needed talents under different training goal, each phase can also make the training target of vocational education of professional skills and professional insight, fully explore and cultivate the students after enters a higher school, as a senior technical skilled talents, To form an orderly connection between different levels and colleges in the vocational education system, boost the characteristics of vocational education, strengthen the characteristic majors among colleges, and increase the attraction of vocational education.

(3) The connection between middle and higher vocational education promotes the transition from middle to high level, which meets the needs of vocational education development.

From the founding of the People's Republic of China to the 1990s, the talent training ideas and strategies of secondary vocational education are consistent with the law of talent training. The graduates of secondary vocational and technical education can meet the needs of society and play an important role in their posts. However, with the change of market demand, that is, the oversupply of talents trained by secondary vocational education directly leads to the change of pattern. Junior high school graduates from “secondary vocational” to “general education”, this change in the pattern of secondary vocational education caused an invisible force. With the expansion of higher education, graduates with higher academic degrees begin to

become the first choice of employers, which directly promotes the transition from secondary vocational education to higher vocational education, and begins to form the coexistence of middle and higher vocational education. Secondary vocational education is endowed with the dual identity and function of employment and study, that is, the training of secondary vocational education should not only prepare for employment, but also prepare for study in higher vocational colleges. At this time, China also issued relevant policies and regulations to allow a certain number of graduates from secondary vocational colleges to continue their studies in higher vocational colleges. For example, the well-known “five-year system” and single entrance examination have become the path of secondary vocational education to higher education.

4.2. Feasibility of connecting secondary and higher vocational education

Secondary vocational education, higher vocational education and applied undergraduate education all belong to the vocational education system, but they are divided into different levels and stages. The three have the common attributes of vocational education, professionalism and skill, all of which aim at cultivating skilled talents. The specialty setting and course types are roughly the same, but the differences are more in the specific operation of specialty setting and the depth and breadth of course teaching content. Reasonable connection between different levels of vocational education is helpful to stimulate the maximization of the overall system function of vocational education.

In the whole system of vocational education, because vocational technology, like knowledge and theory, is also the relationship between accumulation and transmission, application-oriented undergraduate students recruit middle and higher vocational graduates, and higher vocational colleges recruit middle and higher vocational graduates, so as to achieve high-level vocational education with lower vocational education as the training object. In this way, not only can the educational goals of all links in the whole system of vocational education connect with each other to achieve the goal of higher education of lower-level vocational education students, but also can prepare for direct employment and broaden the development space of vocational education students at all levels.

The development of higher vocational education also needs the support of secondary vocational education. At present, Jilin province has 23 independent higher vocational colleges, 1 adult college with higher vocational education as the main body, including 3 national demonstration colleges, 1 national backbone college, and 8 provincial demonstration colleges for vocational education development and reform. Each school has an average of 29 majors, 110401 full-time students, 5018 full-time students, 5508 full-time teachers, 250 full-time teachers, 47,060 full-time students and 34,256 graduates in that year. In 2021, there will be 438,000 regular senior high school graduates and 419,000 secondary vocational school graduates, so the number of graduates can meet the enrollment demand of vocational colleges and applied undergraduates to a certain extent. However, with the decline of the birth rate, the number of graduates in secondary education is decreasing, and the enrollment of vocational and applied undergraduate students is also in a difficult situation.

Therefore, for higher vocational colleges and application-oriented undergraduate students, they have technology and higher teaching ability, looking forward to expanding the path of enrollment. At the same time, in the process of visiting

technical secondary schools, the survey found that not only students hope to have more opportunities to study, but also school administrators will "climb up" with vocational colleges or applied undergraduate schools to improve the reputation and visibility of the school.

Through years of educational reform, especially in recent years, under the national requirement to build a modern vocational education system, Jilin Province of China has provided more favorable policy system guarantee and financial system support for the connection between secondary vocational, higher vocational and applied undergraduate courses. Through the coordination of government and the cooperation of colleges and universities, it provides a good environment for perfecting the connection of various systems within vocational education, integrating all aspects of vocational education resources and promoting the sharing and utilization of resources.

Jilin Province has given priority to the development of modern vocational education system in recent years. As the old industrial base of China, Jilin Province has advantaged industrial industry and industry development resources, and is also the base of many colleges and universities in China, with a good educational and cultural atmosphere, so as to cultivate fertile soil for the development of vocational education in Jilin Province. After years of rapid development, the opportunity to reform and improve higher vocational education in Jilin Province has arrived, and it is imperative to establish higher vocational education at the undergraduate level. Especially in the information age, post-industrial background has a stronger demand for application-oriented undergraduate talents, and secondary and higher vocational students have a stronger desire to enhance their own ability to participate in social competition. Taking this as an opportunity, Jilin Province started the modern vocational education system pilot project to run "Jilin Province Vocational Education Innovation and Development Experimental Area". We will explore a modern vocational education system that links secondary vocational education, higher vocational education and applied undergraduate education. Through the establishment of a complete modern vocational education system, the students who graduate from the high school entrance examination or college entrance examination and enter the vocational education system have more diversified choices, including secondary and higher vocational education, applied undergraduate and even later professional degree master or doctor education. At the same time, it will facilitate the mutual recognition of equivalent credits and courses between vocational education and general education in terms of academic qualifications, promote the improvement of vocational education and vocational qualifications, and build a talent training standard system in line with China's socialist modernization. Strengthening the vertical and horizontal communication between vocational education and general education is conducive to the diversified choice of vocational education students.

5. The Present Situation of Secondary Vocational Education and Higher Vocational Education Development in Jilin Province of China

5.1. The Present Situation of Secondary Vocational Education Development in Jilin Province of China

By the end of 2019, Jilin had 329 secondary vocational schools with 150,000 students; In 2019, the number of graduates is 76,900 and the enrollment is 43,500; There are 17,500 full-time teachers; The university has a building area of 2.91 million square meters, 6.74 million books and 840 million Yuan worth of teaching and research equipment. Among them, there are 75 private schools with an enrollment of 14,000 students. The number of graduates in 2019 is 7,625, with 3,953 students enrolled; There are 1,367 full-time teachers.

Since 2010, Jilin Province has exempted full-time vocational school students from rural and urban families with financial difficulties and students majoring in agriculture from tuition fees, covering 90 percent of the students in secondary vocational schools and reducing the burden on poor students' families. China has set up 21 state-level demonstration (backbone) schools, 43 state-level secondary vocational schools with characteristics, and 117 vocational education training bases, making vocational education centers at the county level all over the province. In 2012, Jilin Province took the lead in building the only vocational education museum in China. The secondary vocational schools have established 104 provincial-level demonstration majors and 167 provincial-level excellent courses. The employment rate of graduates continues to rise, and the primary employment rate of secondary vocational school graduates will reach about 96% in 2019. Through promoting the docking of majors and industries, the docking of curriculum content and professional standards, and the docking of teaching process and production process, the mode of talent training has been innovated, and Ji'an Vocational Education Center and a number of other typical schools have emerged.

5.2. Present Situation of Higher Vocational Education Development in Jilin Province

Jilin Province in China now has 23 independent vocational colleges with 114,000 students. In recent years, jilin provincial government attaches great importance to vocational education, increase the intensity of support, the entire province vocational education work conference, introduced the Jilin provincial party committee of the communist party of China, Jilin province people's government on the opinions of the higher education strong province and the CPC Jilin provincial committee of the people's government of Jilin province to accelerate the development of Jilin characteristics of modern vocational education implementation opinion and the relevant supporting documents. At present, Jilin Province has 4 state-level demonstration (backbone) schools, 5 provincial demonstration schools, 19 state-level excellent courses, 50 provincial brand specialty groups, 28 vocational education groups of various kinds, covering the province's higher vocational colleges, more than 10 undergraduate colleges, more than 800 enterprises and industrial organizations. Through the implementation of the "Changbai Mountain Skilled Teachers Program", 106 people with high technical skills have been selected and hired, with annual subsidy of 200,000 Yuan per person for three consecutive years. In 2014, 63 pilot projects linking middle and higher vocational education were established. Every year to undertake the national vocational skills contest in events such as cars, undertake national modern apprenticeship five pilot project, "Changchun automobile industrial college school enterprise collaborative innovation" to reform the experimental project was listed as a national education system reform of China's state council, pilot projects for the Ministry of Education of modern vocational and technical college in Changchun apprenticeships theory research and practice exploration work, joint China

petroleum and chemical industry federation of Jilin province department of education co-hosted the Ministry of Education about the cooperation BBS. In 2015, provincial higher vocational colleges will allocate more than 12,000 Yuan per student, and by 2018, they will meet the same standards as undergraduate colleges. In 2015, provincial-level special funds for vocational education reached 353 million Yuan. Higher vocational colleges play an exemplary and leading role in the development of vocational education in the whole province, laying a good foundation for the innovative development of vocational education.

6. Analysis on the Current Situation of the Link-up of Secondary Higher Vocational Education and Higher Vocational Education in Jilin Province of China

6.1. The Present Situation of the Linking-up Mode of Secondary Higher Vocational Education and Higher Vocational Education

In recent years, China's Jilin Province has adopted a five-year system, 3 + 2, 3 + 3, peer-to-peer higher vocational education, such as a variety of linking-up models. In addition, on the level of connection, there are both the connection of Secondary Vocational School and Higher Vocational School, as well as the connection of higher vocational school and undergraduate. At present, Jilin Province has formed the following three patterns of the transition between higher and Middle Vocational Education:

First, the consistent system of cohesion model. This mode refers to the five-year system, mainly to recruit junior high school graduates into vocational schools for five years. And in the course of the five-year study, the teaching is organized in stages. The first three years of study are divided into one stage. At this stage, students mainly study knowledge of general professional ability and basic courses of culture, in the last two years, the study time is a stage, during which the main object is to carry out the training of professional skills, and to study the theory of professional technology mainly through the teaching of professional courses, training Students' vocational and technical ability. Teaching students of the five-year system can adopt a unified educational and teaching plan, which is easy to produce results and improve the quality of teaching, so as to form stable professional thoughts and good professional ethics, and it can guarantee the training quality of high-level application-oriented specialized talents. Second, the non-academic transition model. This connection mode means that secondary vocational schools and higher vocational schools, through certain means, allow the standard personnel to enter, so that they can smoothly accept higher vocational education, in order to achieve the secondary vocational schools and higher vocational schools to link up the model. Instead of connecting through the academic system. In this model, students in secondary vocational schools include secondary vocational students who are enrolled in secondary vocational schools, as well as in-service secondary vocational education graduates who have entered the workforce. This connection mode can meet various demands of itself to a great extent, save educational resources effectively and improve teaching efficiency because of less restriction. It opens a Continuing education for the graduates of secondary vocational schools and contributes to the construction of a lifelong education system. The third is the mode of piecewise cohesion. This linking-up model is for graduates who have completed their studies in secondary vocational schools to enter the stage of higher vocational education by means of an entrance examination, for example, a matching

entrance examination, which is a form of the “3 + X” examination, the length of study is usually 2-3 years. In this “3 + X” examination, 3 refer to the three basic cultural courses of Chinese, mathematics and English, and x refers to the comprehensive professional subjects.

6.2. Current Situation of Curriculum Link-up in Secondary Higher Vocational Education and Higher Vocational Education

At present, the students of ordinary schools in Jilin Province, whether in secondary vocational schools or higher vocational schools, still account for a large proportion of the total number of students, and ordinary schools prefer general cultural knowledge in the knowledge they have learned, while learning less about skills, even if the same source of students from vocational schools, courses in schools, teaching content is still very different. Generally speaking, the gradient hierarchical system of the curriculum system of the secondary and higher vocational schools in Jilin Province has not been set up. The secondary and higher vocational schools do their own work, and there is no coordination and coherence in the curriculum setting, and the levels are progressive, thus causing confusion in the professional knowledge system, cause some course content duplicate, some course content student study repeatedly, but did not achieve the thorough understanding to the knowledge or the skill mastery in the original foundation. To build a complete vocational education system from the primary level to the senior level, not only is it necessary to link up the form of the secondary and senior vocational schools, so that the junior students can be selected to enter the higher vocational schools, what is more important is to achieve real cohesion in the content. In order to achieve the link from form to content, we must ensure that the curriculum of vocational education can form a complete system, a curriculum system from primary to advanced, from shallow to deep, step-by-step. However, the curriculum content of vocational education is different from the students' previous knowledge background, which not only makes it difficult for vocational education students to study the current vocational education curriculum, but also hinders vocational education students to continue to study; On the other hand, because of the lack of vertical linkages in the vocational education system, there are no basic standards limiting the transfer of talent to the next level of education or the continuation of learning to improve the knowledge available, regardless of the level of the school curriculum, that raises questions about the quality of the vocational education.

7. The Problems Existing in the Process of the Link-up of Secondary Vocational Education and Higher Vocational Education in Jilin Province

7.1. The Administration is Decentralized, the Vocational Education System Needs to be Improved

The management of the vocational education in Jilin Province, China, is decentralized, lacks coordination mechanisms, and the vocational education system is not perfect. A number of departments are involved in the management and vocational training of vocational schools, and the education departments and some industrial systems are responsible for the management of General Secondary Schools, adult secondary schools, vocational schools, private vocational schools, etc. The Ministry of Human Resources and Social Security of the People's Republic of China is

responsible for the identification of vocational skills and the employment training of the urban and Rural Labor Force; The organizing departments of higher vocational colleges are also divided into education administration, industries, enterprises and social forces, etc. Not only are there many competent departments, but as far as the internal management of education administration departments is concerned, there is also multi-functional management of the vocational education (under the Lifelong Education Division, the Vocational Education Division, the Higher Education Division and so on). Because the government is multi-disciplinary and the management is scattered, it is impossible to form a perfect vocational education system, which results in the lack of an organic link between secondary vocational education and higher vocational education, and the separation of diploma education and Training Education, personnel training level, specifications, characteristics of the relatively fuzzy, teaching content repeat, teaching resources waste, teaching efficiency is low.

7.2. The Specialized Establishment Imitates, Can not Adapt the Domestic and Foreign Market Demand Change

At present, the specialty setting of secondary vocational colleges in Jilin Province is copying, which can not adapt to the rapid changes of domestic and foreign market demand and meet the needs of local economic development. It is necessary for Jilin Province to set up the professional standard, and to make the professional plan and the teaching plan with the investigation of the human resources market. At present, secondary vocational education in Jilin Province currently offers tourism hotels, e-commerce, medicine, accounting, art, sports, nursing and so on. There are more specialties, while there are fewer specialized courses offered by higher vocational education, generally less than secondary vocational education courses, secondary vocational school students in the process of entering school because they can not find an exact equivalent of the major had to give up the previous major and transfer to another major for study, leading to the transition between high and secondary vocational is not very smooth.

7.3. There Is No Specific Policy For Credit Conversion, Which Can Not Keep Up With The Development Of Secondary And Higher Vocational Education

The scope of credit conversion of higher vocational education in Jilin Province is small, which is mainly limited in the process of entrance examination of higher vocational education. Since there is no specific policy on the recognition of credits in secondary vocational schools in the process of students' entrance examination to higher vocational schools, the credit conversion system in the whole province is still at the experimental stage. Credit conversion is relatively slow and can not keep up with the development of secondary and higher vocational education.

7.4. The Mode of Curriculum Articulation is Relatively Backward

At present, the curriculum linking-up mode of secondary vocational education in Jilin Province is relatively backward. On the one hand, the curriculum development of secondary and higher vocational education in Jilin Province still belongs to the subject-centered mode, on the other hand, the curriculum setting of secondary vocational education can not meet the needs of professional development, the curriculum development of higher vocational education does not take into account the differences between different sources of students (such as unified examination and

counterpart students) , ignoring the link between secondary and higher vocational education. Secondary and higher vocational education in the curriculum link-up does not really link up.

8. Countermeasures for Effective Connection of Secondary and Higher Vocational Education in Jilin Province, China

8.1. Deepen Reform and Establish a Modern Vocational Education Management System with Scientific Management and Clear Powers and Responsibilities

At present, education and Vocational Training, diploma and Vocational Qualification Certificates of vocational schools in Jilin Province of China are under the management of the education department and the personnel and labor security department respectively, among which the technical schools are run by the latter, in addition, some industrial enterprises have also held a number of vocational colleges, forming a pluralistic school-running, multi-management situation.

Many measures should be taken to solve the system obstacles brought by horizontal multi-management and vertical top-level division to the construction of vocational education system and the link-up of secondary and higher vocational education. On the one hand, we should establish and improve laws and regulations, further straighten out the relations between the external stakeholders of the vocational education, and clarify the administrative duties and powers of the education departments, personnel and labor departments, and industrial enterprises, under the leadership of the State Council, the inter-ministerial Joint Conference system of the Vocational Education shall be strengthened to give full play to its functions of overall planning, comprehensive coordination and macro-management, and to jointly study and solve major problems in the work of the vocational education. We will strengthen the division of Labor and Cooperation Between Education and personnel and labor departments, and work closely together to provide institutional guarantees for the integration and conversion of academic certificates and vocational qualifications, as well as for the connection and communication between the education system and the training system. On the other hand, it is necessary to reform the malpractice of the division management of vocational education by the Educational Administration Department and establish a special cross-level vocational education department.

8.2. The Education Administration Department of the Government Takes the Lead in Carrying Out Research and Research in the Light of the Market Demand, and Carrying Out the Official Norm on the Establishment of the Specialties in Secondary and Higher Vocational Schools

In order to ensure the overall planning, unified management and comprehensive coordination of the professional setup of secondary and higher vocational education, we should put it under the unified management of a vocational education administration department and Straighten out the relationship of ownership. In the future, we will also conduct regular research and research to fully consider the needs of the market for professional setting. It is necessary for Jilin Province to set up the professional standard, and to make the professional plan and the teaching plan with the investigation of the human resources market. The setting of the major in secondary and higher vocational education should fully consider the employment of students and provide a good platform for the development of students.

8.3. Establishment of Credit Accumulation and Transfer System

The system of credit accumulation and transfer should be established in the future. To bring the learning methods such as industrial (agricultural) alternation, modern apprenticeship and distance education into the scope of vocational education policy support, to establish a credit accumulation and conversion system based on credit banks, and to be in line with the national credit banks, promoting the link of mutual recognition of learning achievements. We will promote curriculum development and reform of the teaching management system that are compatible with the credit system, and on the basis of adhering to the requirements for training, to explore the credit transfer and identification between ordinary undergraduate colleges, secondary vocational schools, adult colleges and community educational institutions. In part of the demonstration higher vocational colleges to take the lead in the accumulation of learning results and conversion of the pilot. At the same time, we should also implement the flexible credit system. Under the flexible credit system, students can either study part-time according to their needs or choose different courses according to their own needs. They can also use credits from secondary vocational schools to avoid repeating their studies. At the same time, it can provide more choices for students' personality development and future employment, and make students have more learning autonomy and the right to choose. From now on, Jilin Province will implement a flexible credit conversion system in the vocational education, whereby students' course results learned in secondary vocational schools will be converted into credits to be recognized in higher vocational education, students do not have to repeat what they have learned before, reducing the waste of educational resources.

8.4. Curriculum Restructuring to Enhance Curriculum Convergence in Secondary and Higher Vocational Education

The curriculum linking-up of secondary and higher vocational education should take into account the differences among different students, and the curriculum setting should pay attention to the cultivation of employment ability. At present, the secondary and higher vocational education in Jilin Province not only has the same specialty setting, but also has the same curriculum content, so it can not link up scientifically. The low overall efficiency of the vocational education restricts the long-term development of vocational education and the establishment of a scientific education system. In order to realize the mutual connection and coordinated development of higher vocational education, it is necessary to carry out the reform of curriculum system and realize the reorganization of curriculum. In the future, the connection of courses should take into account the differences among different sources of students, the courses should focus on the cultivation of employment ability, and at the same time, the teaching contents should be flexible, and the past uniform teaching contents should be divided into different grades and levels, according to the different acceptance degree of students, we can choose the combination of teaching contents to achieve the best teaching effect.

8.5. Introduction of Foreign High Quality Vocational Education Resources

We will introduce high-quality vocational education resources, support Chinese and foreign vocational schools to run schools in cooperation, coordinate and introduce international advanced professional standards and curriculum systems, and attract overseas high-quality vocational schools to run schools in the province. Introduction of International Certification of Audi mechanical and electronic technicians,

establishment and deepening of cooperation with the Belarusian National Technical University, learning and introduction of advanced professional standards, professional courses and teaching materials in machinery, automobiles, commerce and trade. And Australia , South Korea and other countries (outside) joint development of high-level institutions courses. We will support higher vocational colleges in applying for permission from foreign experts (cultural and educational) to hold high-level Chinese-foreign cooperative educational programs and institutions.

8.6. Optimization of Domestic Resources for Vocational Education

8.6.1. Strengthening the Specialty Construction of Secondary and Higher Vocational Colleges

Improve the professional level, overall professional management, improve training conditions. Focusing on the need for Jilin Province to vigorously develop pillar industries, advantageous and characteristic industries, strategic emerging industries, and to accelerate the development of the private economy and promote the construction of a new type of urbanization, it will focus on supporting the development of new energy automobile, biochemical industry, biomedicine, electronic information, new materials, new energy, advanced equipment manufacturing, energy conservation and environmental protection, “Internet plus”, home care for the aged, modern agriculture, as well as cultural creativity and design, folk craft, ethnic cultural heritage and other fields, major of construction backbone. In the light of the demand for skilled personnel from the pillar industries and strategic emerging industries in Jilin Province, we will support higher vocational colleges to cooperate in depth with enterprises of scale or above with advanced technology, standardized management and a strong sense of social responsibility, construction of productive practice and training base by school and Enterprise.

8.6.2. Continuing to Build Exemplary Quality Institutions

On the basis of the earlier stage of the construction of the model school, a new round of the construction of the model school will be carried out to build the model vocational colleges. We will support and encourage the model schools to take the lead in the development of specialty, social service ability and comprehensive school-running level, so as to enhance the influence and contribution of vocational and technical colleges in Jilin Province.

8.6.3. Promotion of the Construction of Teaching Staff in Secondary and Higher Vocational Colleges

We will further improve the practical and professional teaching capabilities of professional teachers, give full play to the advantages of large state-owned enterprises such as Faw and CNR, and Build “double-qualified” training bases for teachers in schools and enterprises to meet the needs of teacher training. We will improve the training mechanism for young teachers by bringing in the old and bringing in the new; we will establish a system of rotating training for teachers; professional teachers will spend more than two months in enterprise practice every two years, and we will implement a training plan for key professional teachers in higher vocational colleges, we will strengthen the construction of vocational and Technical Teachers Colleges, support higher vocational colleges to recruit part-time teachers on their own in accordance with relevant regulations, and strengthen the training of part-time teachers

in teaching laws and methods of vocational education Part-time teachers or cooperative enterprises shall be supported to take the lead in applying for teaching research projects and organizing the implementation of teaching reforms.

8.6.4. Enhancement of Information Technology Applications

We will promote the implementation of the code for digital campus construction in China's vocational colleges. We will establish an information-based management system for vocational education, build a province-wide digital resource base and a public service platform, complete the construction of a digital campus for vocational schools, and expand the coverage of high-quality educational resources. Vocational colleges are encouraged to develop virtual simulation training system and online courses, explore network teaching mode, and develop distance teaching construction of real-time interaction between teaching process and production process. To bring into play the leading role of the established National Teaching Resource Bank, to build provincial-level online open courses and virtual simulation training center of higher vocational education. The ability of information technology application is the important basis for the evaluation of teachers.

8.6.5. Improving the Structure of Higher Vocational Education

We will quicken the pace of reform in higher vocational colleges, deepen the reform of personnel training models, enhance the ability to apply technological innovations and expand community education and life-long learning services. We will continue to carry out the transformation work on the basis of the existing pilot institutions that are transforming in whole or in part into application-oriented institutions. By extending the autonomy of running a school, adjusting the enrolment plan, adding the authorized point of master's degree, and increasing the investment, we can guide the transformation from ordinary universities and specialties to applied technology. When an independent college is set up as an independent institution of higher learning, it is encouraged to be an applied technology-oriented institution of higher learning. Exploring the realization form and training mode of undergraduate level vocational education. The scale of higher vocational education in undergraduate colleges should be reduced continuously by means of reducing the per-student funding for undergraduate enrolment.

8.6.6. Deepen the Collectivization of Vocational Education Influences of Progressivism in China

We should fully implement the Opinions of the Ministry of Education of China on Further Promoting the Groupization of Vocational Education and give full play to the important role of vocational education groups in promoting the organic integration of the education chain and the industrial chain. Encourage leading enterprises to take the lead in setting up vocational education groups to develop park oriented vocational education groups that support local industries. We will carry out trials for the reform of vocational education groups jointly built by diversified investors and linked by property rights. Encourage the development of vocational education groups that connect middle and higher vocational schools at multiple levels and combine enterprises, universities and research institutes. Strive to build a multi-backbone vocational education group. We will improve the collective governance structure and decision-making mechanism for running schools, including joint meetings, boards of

directors and boards of directors. Construction of chain - type vocational education group.

9. Conclusions

The development of the world economy and the progress of science and technology all require that vocational education must break this long-term ending situation and realize the extension of vocational education in the level, so as to better meet the demand of the society for high-level talents. Internationally, the connection between middle and higher vocational education is the product of the trend of international lifelong vocational education, and a good connection between middle and higher vocational education can guarantee the healthy development of vocational education. At present, there are several successful experiences in the connection of secondary and higher vocational education in China and abroad. First, foreign countries generally attach great importance to it, encourage the connection between middle and higher vocational education, and give certain policy support; Secondly, in the aspect of course connection, we generally adopt the measures of joint research, development and unified arrangement, and formulate the integrated outline of middle and higher vocational education. Third, secondary vocational graduates who meet certain conditions can directly enter higher vocational education for study; Fourthly, the state guarantees the equivalence system between vocational education and general education diploma through legislation; Fifth, students can directly enter higher education with the national vocational qualification certificate; Sixth, the vocational education system is integrated, and the middle and higher vocational education are connected with each other.

In order to realize the long-term development of vocational education in Jilin province, it is necessary to do a good job in the effective connection of middle higher vocational education. The effective connection of secondary higher vocational education should be strengthened through deepening reform and official regulation of the setting of secondary and higher vocational majors. In addition, to do a good job in employment, only “smooth export” to “prosperous entrance”. Enrollment is not the only purpose. During the period of vocational education, students can master a certain skill through systematic theory and practice teaching, and then be recommended by the school to work in large enterprises after graduation. They can also achieve a brilliant life. Through school-enterprise cooperation, order training, modern apprenticeship and other measures, vocational schools create and build productive training bases in line with the standards of industrial enterprises. Each major has the participation of large enterprises in training, and the supply of graduates exceeds the demand, which provides talent guarantee for the local economic development of Jilin Province.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

References

- [1] Xu, T. Theoretical Analysis and Case Study of Collective Schooling of Vocational Education. East China Normal University, 2011.
- [2] Jiang, D.Y. Business State is a new chapter in Haihe Park -- "Symposium on Promoting the Coordinated Development of Secondary and Higher Vocational Education" scan. China Vocational and Technical Education, 2011, 22.
- [3] Ma, J.F. Discussion on the Connecting Mode of Secondary and Higher Vocational Education. *Modern Education Science*, 2003, 2.
- [4] Shi, W.P. Comparative Vocational and Technical Education . Shanghai: East China Normal University Press.Editors of Encyclopedia Britannica Online. 2020.
- [5] Karen, L.; Jennifer,L. et al. Career and Technical Education in the United States: 1990 to 2005 Statistical Analysis Report. U.S. Department of Education, 2008, 7.
- [6] Matbias, K. Vocational Education in the United States: reforms and results. *Vocational Training: European Journal*, 2001, 23, 30.
- [7] Jessup. Outcomes: NVQs and Emerging Model of Education and Training. London: The Falmer Press. 1991.
- [8] Qin, H. Inspiration from the Connecting Mode of Foreign Secondary Vocational and Higher Vocational Education. *China Vocational and Technical Education*, 2002, 12.
- [9] Liu, Y.F. Comparative Study on the Connections between Chinese and Australian Secondary and Higher Vocational Education. *Vocational and Technical Education*, 2002, 25.
- [10]Zhu, X.M. A review of the research on the connection between secondary vocational and higher vocational education in China. *Vocational and Technical Education*, 2011, 7.
- [11]Qi, H.Y. Research on the Construction of Connecting Curriculum System of Higher Vocational Education in Liaoning Province. Shenyang: Shenyang Normal University. 2015.
- [12] Warm, L. Research on Curriculum Connectivity of Higher Vocational Schools in Wenzhou, Zhejiang Province -- Taking Applied Electronic Technology as an Example . Jiangxi: Jiangxi University of Science and Technology, 2014.
- [13]Liu, J. Construction of Legal Undergraduate Practical Curriculum System . Beijing: Capital Normal University, 2007.
- [14]Chen, X.D. Research on the optimization of hotel specialty curriculum in Zhejiang secondary vocational schools. Zhejiang: Zhejiang Normal University, 2012.
- [15]Wang, J.D. Research on the Current Situation and Countermeasures of Higher Vocational Education Connection in Gansu Province. Shanxi: Northwest Normal University, 2005.
- [16]Xu, W.G.; Shi, C.Q. Research on Connecting Curriculum in Higher Vocational Schools. *Educational Research*, 2012, 05, 69-74.
- [17]Gong, W.X. A Preliminary Study on Course Connectivity in Vocational and Secondary Colleges. *Vocational Education Bulletin*, 2010, 11, 11-12.
- [18]Deng, Z.M. Promoting the Formation of Modern Vocational Education System through Double-credit Curriculum System. *Journal of Capital Normal University (Social Science Edition)*, 2012, 03, 122-125.

- [19] Li, X.G.; Wu, Y. Study on the network structure system of vocational education in Guangzhou. *Journal of Guangzhou University (Social Science Edition)*, 2007, 01, 71-75.
- [20] Gao, Y.; Cao, Y.; Ma, S.S. An Analysis of the Constraints and Countermeasures of Curriculum Connectivity in High and Secondary Vocational Education. *Education and Occupation*, 2004, 3, 28-30.
- [21] P. G. Altbach.; R.O. Berdahl.; P.J. Gunport. Higher Education in American Society. Amherst, N.Y.: Prometheus Books, 1994, 127.
- [22] Gary, H. Toward a New Framework of Industry Programs for Vocational Education: Emerging Trends in Curriculum and Instruction. Berkeley: MPR Associates, Inc. 1998.
- [23] Ogbu, J.U. Minority Education and Caste. The American System in Cross-cultural Perspective, New York: Academic Press. 1978.
- [24] Thelen, K. How Institute Evolve: The Political Economy of Skill in Germany, Britain, the U.S. and Japan. Cambridge: Cambridge University Press, 2004, 149.
- [25] Wang, Q.M. A Brief Discussion on Factors Affecting Students' Teaching Effect and Countermeasures -- Taking Primary School Mathematics Teaching as an Example. *Chizi (Middle)*, 2014, 09, 271.
- [26] Jiang, W.; Tang, J. Exploration on the Connecting Mode of Curriculum System in Middle and Higher Vocational Education. *Education and Teaching Forum*, 2014, 32, 183.
- [27] Lei, J.L.; Huang, B.Y. Building Professional Teaching Standards for the Connecting of Vocational Education and Guiding the Healthy Development of Vocational Education. *Journal of Wuhan Shipbuilding Institute*, 2013, 04, 66-67.
- [28] Liu, H.; Wang, H.L. Historical logic, realistic dilemma and transcendence of the connection between middle and higher vocational education. *Vocational and Technical Education*, 2011, 31.
- [29] Yan, X.Y. On the effective connection between secondary vocational school system and higher vocational school system. *Vocational and Technical Education (Education Science Edition)*, 2002, 23(16), 5-6.
- [30] Li, C.C. Study on the Course Connectivity of Accounting Vocational Education. *China Market*, 2005, 32, 146.
- [31] Fang, Y. Main Problems and Countermeasures in Connecting High and Secondary Vocational Education. *Chinese Adult Education*, 2014, 7, 23-24.
- [32] Wang, B.J. The Main Problems and Countermeasures of Connecting High and Secondary Vocational Education. *Journal of Zhengzhou Railway Vocational and Technical College*, 2004, 16(2), 2-4.
- [33] Zhang, X.B.; Xie, G.X. Research on the Connectivity of Higher Vocational Education under the Guidance of Curriculum Concept . *Vocational and Technical Education (Education Science Edition)*, 2005, 26(25), 41-43.



© 2026 by the author(s); licensee International Technology and Science Publications (ITS), this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (<http://creativecommons.org/licenses/by/4.0/>)