

A Study on the Research Status and Trends of the Connection Between Secondary and Higher Vocational Education Curriculum in China: Based on the Thesis About the Connection Between Secondary and Higher Vocational Education in the CNKI.Net

TAN Qiang^{[a],*}; FENG Mei^[b]

^[a]Ph.D., Candidate, Faculty of Education, Southwest University, Chongqing, China.

^[b]Lecturer, Sichuan Province Business & Trade School, China.

*Corresponding author.

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Abstract

In the paper, the bibliometrical method has been used to explain the thesis about the connection between secondary and higher vocational education in the CNKI.Net. The research content has those such as the amount of published papers, concept and positioning, theoretical foundation, content of cohesion, cohesion way, problem of attribution and strategy, pilot reform and practice, security system and measures, the international comparison study, etc.. The study wants to find the research focus and development status of the connection between secondary and higher vocational education in china, and to provide research foundation for the future development.

Key words: The research status and trends; The curriculum connection; Secondary and higher vocational education in China

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INTRODUCTION

The purpose of educational scientific research is to find out the special law of education. The connection between secondary and higher vocational education is the

key factor in the construction of the modern vocational education system in our country. The study on the connection between secondary and higher vocational education, not only to some extent represents the research status of vocational education in our country, also reflects the situation of the vocational education development and reform in China. In this paper, the writer makes quantitative analysis to the contemporary thesis concerning the connection between secondary and higher vocational education on the CNKI (China National Knowledge Infrastructure) to learn the research status and trends of the connection between secondary and higher vocational education course in China. The writer also analyze the development of vocational education in China from the perspective of education research and tries to reveal the trend of the development of vocational education to provide basic research to the modern vocational education system construction and the future development of China.

CNKI is a leading global digital publishing platform and a professional website providing knowledge and intelligence services to all walks of life both at home and abroad .It has developed into a specific international leading level of network publishing platform collecting journals, master's thesis, dissertation, conference papers, newspapers, reference books, yearbook, patents, standards, Chinese and foreign literature resources. This is also the main reason why the writer chooses it as the research object.

The writer makes standard Search in the Netherlands Elsevier SDOL resource pool and gets 1,172 retrieval results with the keyword “curriculum connection and secondary and higher vocational education”. The writer also makes standard retrieval in CNKI resources pool and gets 180 retrieval results with the keyword “curriculum connection”. The annual number of literature distribution as shown in figure 1. The writer makes further standard retrieval in CNKI resources pool and get 65 retrieval

results with the keyword “curriculum connection and secondary and higher vocational education”.

The annual distribution of literature as shown in Figure 1.

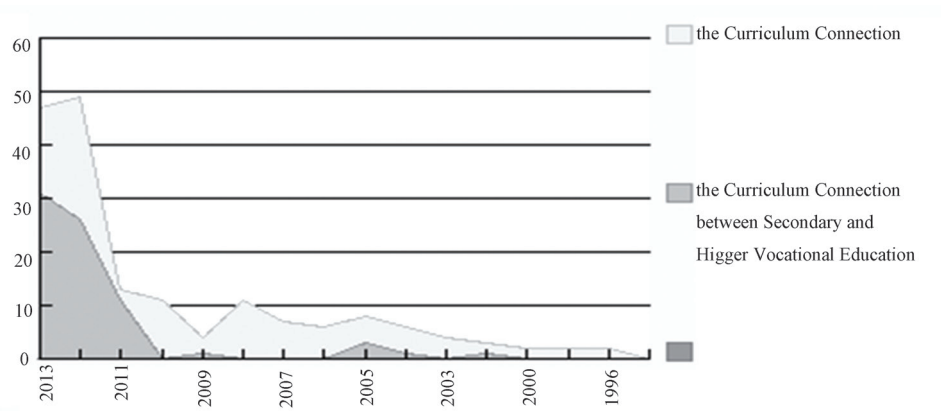


Figure 1
Annual Literature Distribution Scale Map on Curriculum Connection and Curriculum Connection of Secondary and Higher Vocational Education

With keywords “secondary and higher vocational curriculum connection” as the theme, the writer gets 80 precise retrieval results; With keywords “secondary

and higher vocational curriculum connection” as the theme and keywords “modern vocational education system” included, the writer gets 19 precise retrieval results; With keywords “secondary and higher vocational curriculum connection” as the title, the writer gets 38 precise retrieval results. Through screening, the writer found 38 effective retrieval results. The annual number of literature distribution as shown in Figure 2.

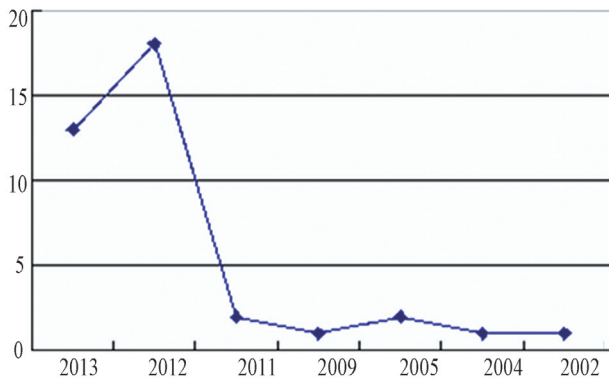


Figure 2
Annual Literature Quantity Distribution Scale Map on Curriculum Connection of Secondary and Higher Vocational Education

Among them, there are 36 results in the Chinese Journal Full-text Database no result in Chinese PhD thesis full-text database; no result in outstanding master’s thesis full-text database; 2 results in the Chinese important conference paper full-text database; no result in international conference paper full-text database; 2 results in Chinese important newspaper full-text database. With keywords “secondary and higher vocational curriculum connection” as the title and keywords “modern vocational education system” included, the writer gets 0 precise retrieval result. (The above literature retrieval up to January 26, 2015)

Table 1
Literature Publication Comparative Statement of Secondary and Higher Vocational Curriculum Connection

Item	Chinese journal	PhD thesis	Master’s thesis	Important conference	International conference	Important newspaper
Quantity	36	0	0	2	0	2

Since 1985, it is proposed that higher vocational colleges should give priority to secondary vocational graduates in “the CPC central committee decision on reform of the education system” and then it is decided that secondary vocational education should be given the opening channel to the higher vocational education and the ordinary higher education ,which ensures the secondary and higher vocational to join each other .So the Chinese began to pay attention to the secondary and

higher vocational curriculum connection .Since the mid-1990s, there are increasing works published and thesis announced in academic periodicals on secondary and higher vocational curriculum connection .However, secondary and higher vocational curriculum connection has just been discussed as a part in the “secondary and higher vocational education”, little as an independent part. After years of exploration and practice, secondary and higher vocational curriculum connection has become an

important topic in modern vocational education system and secondary and higher vocational curriculum research.

The research on the secondary and higher vocational secondary and higher vocational curriculum connection has developed from nothing and rapidly risen in recent years, which plays an absolute advantageous role in the research field of secondary and higher vocational connection and curriculum connection. The research on the secondary and higher vocational curriculum connection has focused on the concept and orientation, theoretical foundation, content, cohesion way, attribution and strategy, pilot reform and practice to explore, security system and measures, the international comparison study, etc..

1. RESEARCH REVIEW AND ANALYSIS

1.1 Research on the Concept and Positioning of Secondary and Higher Vocational Curriculum Connection

Current research on secondary and higher vocational curriculum connection in China is still in the practice exploration and theoretical construction phase, so the concept definition of “secondary and higher vocational curriculum connection” and “the system of secondary and higher vocational curriculum connection”, in addition to relevant expression in the policy document, has not yet formed in the study of system science. But there are some research reports which make a preliminary concept. Hu (2010) believes that curriculum connection is a part of the course organization, is also the important process of course design. Curriculum connection is connecting a variety of different course content or learning experience to make them achieve course objectives. And He also gives further representation from two aspects of courses and connection. Oliver (1977) think curriculum connection is the relationship of different levels of the course. Yang (2007) thinks it is wrong to narrow the concept of curriculum connection. One-sided pursuit of knowledge-based learning, unconsciously narrowing the scope of the concept of connection, making connection only limit to the preparation and outspread of knowledge, blindly and emphasizing on the training of the ability to read, write, calculate will bring certain difficulties to scientific curriculum connection. Liu (2012) argues that with Hegel’s concept of “first” theory as the basis, within the framework of the existing concept, and on the basis of judging the problems facing secondary and higher vocational curriculum connection, the concept of courses in secondary and higher vocational curriculum connection should include two aspects—the choice of teaching content and process. When she gives definition to secondary and higher vocational curriculum connection, she points out that connection is one of the content and classes curriculum connection as a connotative mode of secondary and higher vocational curriculum connection.

About the Importance of the positioning of secondary and higher vocational curriculum connection, Zhang (2013) believes that curriculum connection is the content and support of education connection, the inevitable requirement of social development, and decided by the foundation and core of curriculum in vocational education. Jiang (2007, p.124) believes that in any kind of education system, curriculum remains the core status. The development and reform of professional education, especially the education teaching reform, must eventually come down to the development and reform of curriculum.

1.2 Research on the Theory Basis of Secondary and Higher Vocational Curriculum Connection

Wu and Jiang (2012) proposed that there are three theory bases of secondary and higher vocational curriculum connection, namely the law of people’s cognitive development and movement skill formation, the law of people’s physical and mental development sequence and period and the principle of benefit maximization. Liu (2012), who long engages international professional education comparison research, through systematically studying the development of vocational education and training curriculum basis, method and system, puts forward that China should draw lessons from the related experience of England, consider both professional and educational character, develop connective secondary and higher vocational curriculum, develop qualification framework and make qualification criteria as the criteria of building up connective secondary and higher vocational curriculum. Zou (2013) believes that the criteria of secondary and higher vocational curriculum connection is that people’s lifelong education needs, people’s cognitive development stage, the development of education meets the need of social economic development. Kuang (2012) thinks, the logical starting point of secondary and higher vocational curriculum connection is the training target and talent training specifications.

1.3 Research on the Content of Secondary and Higher Vocational Curriculum Connection

Shen (2013) thinks that curriculum objectives, curriculum content, professional ability, teaching method are the content of curriculum connection; Zhang (2012) thinks the curriculum standard, curriculum content, and curriculum structure, etc. are the content; Zhang (2013) thinks the curriculum standard, curriculum content, curriculum structure, and teaching material content are the content; Liu (2013) thinks that training goal, cultural foundation courses, professional courses, and professional skills courses, etc. are the content; Chen et al. (2012) curriculum goal, curriculum system, curriculum content, curriculum content are the content; Jia (2012) thinks that course content, form, evaluation mechanism, etc. are the content. From the above opinions, the researchers think that the main content of the curriculum connection should

include training target, specialty setting, curriculum standards, curriculum content, curriculum structure, curriculum evaluation, teaching methods, and teaching material contents. Their relationships are as follows: First, the connection of training goal is starting point of curriculum connection. The aim of the secondary vocational education is to develop mastering “experience” skills; the aim of the higher vocational education is to develop mastering “strategy skills”. Higher vocational education is based on secondary vocational education. They are different levels of education of the same type. Therefore, the correct positioning of training target of secondary and higher vocational education is the foothold and is also the starting point of curriculum connection. Second, professional connection is the foundation of constructing the system of secondary and higher vocational curriculum connection. Researchers believe that the coordinated development of secondary and higher vocational education must change with the changes of industry structure and labor market, focus on enhancing the consistency and cohesion of similar majors of secondary and higher vocational education on the basis of professional group, and set up the connection mechanisms in secondary and higher vocational majors according to technical talents growth rule. Third, the curriculum standard is the core of constructing curriculum connection system. The researchers want to determine the corresponding level of knowledge structure and ability structure and its formation process according to the different professional post groups which have different training objectives, and determine the scientific and rational, practical and effective professional training curriculum system on the basis of various professional courses content integration and determine the reasonable and scientific teaching order and implement route ,thus avoiding repetition in secondary and higher vocational curriculum content ,broadening and deepening curriculum content and achieving the continuity, order and integration of curriculum content. Fourth, the connection of course content is the main body of constructing curriculum connection system. Researchers think curriculum content connection should follow the principle of wide basis, provide students with professional knowledge, broaden the cultural basis theory, thus benefiting the future continuing education and the expansion of the second professional direction. It also should provide practical knowledge and skills for higher vocational learning. Most importantly, it should take students to personality traits and learning differences. Curriculum structure should be a broad foundation, active module, and include the two goals of vocational education employment and lifelong learning. It should realize the integration of theory teaching and practice teaching by building modular curriculum system with jobs, professional ability as the heart, thus overcoming the content repetition in

secondary and higher vocational curriculum, reducing the amount of class and course gate number, improving the quality of class cohesion, and conducing to the students’ employment and development in the future. Fifth, curriculum evaluation is the important guarantee to construct curriculum connection system. Researchers believe that communication is the guarantee of curriculum connection. Setting credit system and transforming evaluation system are good communication ways. The professional ability and the hierarchical structure of the personnel can be determined by professional standards and professional appraisal assessment requirements, thus building a complete system of professional qualification certificate, realizing comprehensive link of vocational skills, and also making the curriculum connection within the vocational education system (Xun, 2012) .

1.4 Comparative Study on Secondary and Higher Vocational Curriculum Connection Mode in Both at Home and Abroad

Researchers analyze secondary and higher vocational curriculum connection mode in foreign developed countries, and get four kinds: The states, such as the UK and Australia, confirm the vocational education diploma is equal to the general education diploma; The states, such as Germany and France achieve professional qualification with tutorial; The states, such as the United States and Russia, use integrated curriculum or outline; The states, such as Japan uses school system connection. Although the forms of curriculum connection is different, they all make curriculum connection as the center, and curriculum connection is the real carrier and the core of secondary and higher vocational education connection, such as unit cohesion method in Britain, training package join method in Australia , course classification join method in French, spiral escalation in educational system and comprehensive vocational curriculum connection in Germany, and counterpart entrance way connection in Japan (Qin, 2002).

China forms school connection system mode which uses the divisions of school connection system as the criteria, and unlimited learning term system mode. System connection mode is an extensional mode of comprehensive admissions policy on the test, specialty setting, curriculum content, divided into the construction mode and sectional mode. The unlimited learning term system mode is a connotative mode which is characterized by curriculum connection and test connection (Liu, 2002). The ways of secondary and higher vocational curriculum connection mainly include:

The first way is a pattern of five years in a continuous cycle. Students mainly learn common required courses in the first two years and students mainly learn professional courses in the latter three years. The knowledge structure has the characteristics of “wide basis and compound” strengthening the practicability and practicality. The

second is the pattern of “3 + 2”. Secondary vocational schools and vocational colleges globally design the professional training goal and curriculum, teach in different section and manage independently, which have obvious periodic and close correlation. The third is the pattern of “3 + X” counterpart admissions connection. Counterpart admissions only realized the connection of two kinds of education level, but not really solve the secondary and higher vocational curriculum connection. Curriculum standard is not unified, resulting in a disconnected cultural foundation courses, the repetition of the professional courses, unsuitable professional curriculum, the waste of teaching resources and low efficiency. The Fourth is the pattern

of the flexible educational system of secondary and higher vocational curriculum. With flexible teaching system, the secondary vocational students can choose the curriculum according to their own learning ability and time and obtain certain credits or pass vocational college entrance examination test to prove they meet the requirements of higher vocational admission (Xun, 2012).

1.5 Research on Questions, Attribution and Countermeasures of Secondary and Higher Vocational Curriculum Connection

The questions, attribution and countermeasures of secondary and higher vocational curriculum connection are listed in the following table:

Table 2
The Questions, Attribution and Countermeasures of Secondary and Higher Vocational Curriculum Connection

Author	Point	Problems	Attribution	Countermeasures
Huang Bin et al. (2012), Chen Zhang et al. (2012).	Curriculum standard	Not unified, not clear	No unified national curriculum standard and basis; No sufficient argument in curriculum standard	Set mainly professional directory; Establish credit system connection mechanism.
Chen Zhang et al.(2012), Wang Liya (2012), Zhang Jian.	Curriculum objective	Objectives fault; Training target is not connective	No connective objectives between secondary vocational schools and higher vocational colleges;	Position the post, layer the tasks, grade the ability and Systematize talent training goal; Formulate unified curriculum standard.
Huang Bin, Cheng Zhang, Xiao Fengxiang (2013), Ren Ping, Zhang Tao, Li Jin (2013), Zhu Shiming (2013), Zhang Jian, Jia Yanli.	Course contents (selection, organization, the structure of the sort)	Repeated curriculum; Curriculum lack of gradient; Curriculum content repeat; Cultural basic courses disconnect; Professional theory courses repeat; Curriculum system disconnects; Curriculum sorting is not scientific; The mode of curriculum development is subject-oriented; Course structure is obsolescent.	Centralized curriculum management system; Single discipline curriculum pattern; not taking differences between students into account	Position accurately, integrate teaching content and reconstruct curriculum structure; Establish multivariant course management system; Formulate relevant laws and regulations, system, and policy; Establish national curriculum standard; Build a national vocational qualification certificate system; Innovation systems and mechanisms.
Huang Bin, Ren Ping (2010), Wang Liya, Li Jin et al., Jia Yanli	Curriculum implementation (teaching)	Professional skill is unsuitable; Teaching plan is not connective;	lack of equipment and double-qualified teachers ;Higher vocational college use indiscriminately undergraduate compressed versions;	Modularly set, build systematic curriculum development; Cultivate double-qualified teachers.
Jia Yanli (2012)	Curriculum evaluation (mechanism)	Curriculum evaluation mechanism has problems	evaluation mechanism and the modern vocational education system are not merge together	Do market research and establish multivariant evaluation system.
Wang Liya	Professional Settings	Professions is not in demand	Professional Settings in secondary and higher vocational education are not connective	Unity professional Settings
Zhang Jian (2013)	The teaching material	Obsolescent course materials	no flexible style, no connective level gradient.	Unify textbook writing standard

Researchers from different perspective put forward all sorts of problems in secondary and higher vocational curriculum connection, further analyzes the attribution, and puts forward the suggestions and strategies to solve

the problem from different angles. But there is no systematically theoretical guidance. Since it is a whole system, discovering, analyzing and solving problems should be a systematical way.

CONCLUSION

Seeing from the trend of research quantity, the research of modern vocational education system, secondary and higher vocational connection and secondary and higher vocational curriculum connection starts from nothing in nearly 20 years; Seeing from main problems, the research on secondary and higher vocational curriculum connection gradually account for absolute weight in the research on secondary and higher vocational connection and curriculum connection; Seeing from the research literature level, although the high-level research articles written by masters and doctors began to appear, the research literature in the secondary and higher vocational curriculum connection is still blank.

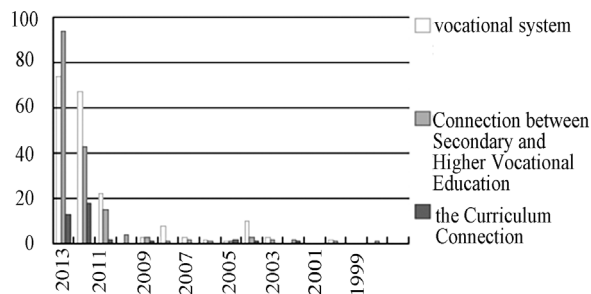


Figure 3
Comparison of Literature of Modern Vocational Education System, Higher Contrast Figure, Secondary and Higher Vocational Curriculum Connection

Figure 3 comparison chart of literature of modern vocational education system, higher contrast figure, secondary and higher vocational curriculum connection

We can get a conclusion that the research on secondary and higher vocational curriculum connection become hot spot and focus of theory research on the current vocational education reform. Building modern vocational education system in China is a very important task of the current education reform. Secondary and higher vocational curriculum connection is the important content of modern vocational education system construction and is the starting point and the foothold of secondary and higher vocational connection; Secondary and higher vocational curriculum connection has become a breakthrough point and the key content of the construction of the modern vocational education system.

At home and abroad there are periodic fruitful results in the research and practice of secondary and higher vocational curriculum connection, secondary and higher vocational connection and modern vocational education system research. On the one hand, a large number of similar related research results from scholars both at home and abroad are helpful for the study of secondary and higher vocational curriculum connection, lay a theoretical basis for new study; On the other hand, the combination is not enough and theoretical height needs to be promoted, thus giving the innovation chance to the writer.

It can be seen that as a result of the limitation of the research itself and the various conditions around, in terms of the existing research literature, there are the following limitations: First of all, from the existing research of secondary and higher vocational curriculum connection, the quantity and quality of domestic research is uneven. Domestic research about secondary and higher vocational curriculum connection is still in the initial stage, not forms a systematic study of the problem domain, almost only connects for connection, not put it in a modern vocational education system, and lack theoretical height, the breadth and depth. Secondly, in terms of research methods, the existing research use inductive or deductive method, aiming at the problem itself, solving “what” and “what to do”. There is no deep and dialectical thinking and exploration to the factors and the relationship of the factors. The attribution analysis behind the problem is not enough. It is stagnant on reasons for the questions. Empirical research on the problem is always not enough and specific. There is no practical significance. Most studies have no microscopic system and are not really effective to solve the problem of secondary and higher vocational curriculum connection.

The study is in the service of the practice. In the new stage of actively reform and innovation to secondary and higher vocational curriculum connection system in all parts of China, strengthening secondary and higher vocational curriculum connection system research at present should focus on the following contents: First, strengthen the theoretical basis of research. Under the background of the construction of a modern vocational education system, the research should be guided by the thought of life-long education, follow the rules of the growth of talented person, and strengthen the theoretical study on secondary and higher vocational curriculum connection. The second is to strengthen the research on the content of secondary and higher vocational curriculum connection, such as the connection of training goal, professional Settings, teaching etc. The third is to strengthen the research on supporting system of secondary and higher vocational curriculum connection, such as establishing communication mechanism between vocational education qualification and national vocational qualification certificate, and establishing communication mechanism the professional ability standard and the vocational education curriculum standard.

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