

Exploration and Practice on the Effectiveness of Connection of Middle and Higher Vocational Education from the Perspective of Management

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Abstract: As an important part of the construction of vocational education system in China, the connection of middle and higher vocational education is an effective way to break away from the original independent system of education length for the consistent training of vocational talents, but still has many unresolved practical problems on how to make it more thorough and effective in spite of existing patterns and corresponding measures. This paper, based on practice and research, aims to solve the practical problems in the process of connecting middle and higher vocational education and enhance its effectiveness in educational practice by establishing the main line of "policy guidance and practice demand", establishing problem-orientation from the three levels of policy, teaching and management, and improving the schooling system, teaching system and management system from the multi-dimensional perspectives of research-led integrated innovation, face-up to reality-oriented optimization path and problem-orientation and innovative promotion, aiming at solving the practical problems in the process of connection of middle and higher vocational education so as to enhance its effectiveness in educational practice.

1. Introduction

The connection between middle and higher vocational education originated in the period of significant adjustment of Chinese educational structure in 1980s, with the basic intention of breaking the original independent system of education length for the consistent training of professional talents and gradually integrating into the construction of national vocational education system, has been a hot issue in the process of reform and development of our vocational education. After more than 30 years of exploration nationwide, a certain pattern and corresponding measures have been formed, which better solves the basic problems in the specific connection process, but

there were still many unsolved realistic problems about how to connect more deeply and effectively. In this paper, based on the practice and research, as well as the analysis of the main line of "policy guidance and practice demand", the problem orientation is established, with an attempt to solve the practical problems of the connection between middle and higher vocational education, aiming to enhance its effectiveness in educational practice.

2. Actual State of Connection of Middle and Higher Vocational Education

Nowadays, the connection of middle and higher vocational education is mostly established between secondary vocational schools and higher vocational colleges, with multiple connection paths. In recent years, a stable connection pattern has been formed through international reference, policy research and scholars' inquiry, but still with a large space for exploration in the efficiency of the connection.

2.1 Policy Level: Entire Connection Staying in the Stage of “Institutionalization” in Spite of Ensuring the Basic Operation of the Connection Process of Middle and Higher Vocational Education

From 1985 to now, the State has issued 14 documents related to the connection of middle and higher vocational education, such as the *Decision of the Central Committee of the Communist Party on the Reform of the Education System*, *Implementation Plan of the National Vocational Education Reform* (Table 1). The top five jobs with a high frequency are enrollment/examination, the “overpass” of talent training, vocational education system, curriculum system and the orientation of colleges and universities, all of which are job-oriented but rarely supporting measures. The group operation mentioned above can be promoted only after breaking the existing policy bottleneck. Therefore, the existing connection is based on the two stages of the existing educational system, namely, secondary vocational and higher vocational education, with the difficulty of reconstructing the administrative affiliation between secondary and higher vocational colleges under the existing policy background. Moreover, it is difficult to realize the full integration of talent training process and the effective use of education and teaching resources, which can only be carried out in stages according to the teaching and management requirements of different stages of middle and higher vocational education. At the provincial and municipal level, based on the overall work orientation of the country, guidance documents are issued on the basis of combining regional needs and referring to the practices of local colleges and universities, which not only solidifies the mode of "3+2" and "five-year consistent system" in the absence of policy breakthrough by the existing educational system clarifies the basic requirements between connected colleges and universities, but also provides work direction in program design, program implementation and mechanism establishment, and better guides the connecting process of middle and higher vocational colleges. However, policy breakthroughs have not been made at the level of “education length” and collectivized operation, resulting in the limited connection mode restricting more and better possibilities to achieve, and the excessively high proportion of entrance reduces the enthusiasm and initiative of students in secondary vocational schools. Nowadays, the teaching connection between the middle and higher education is not paid attention to by most of the colleges, so the whole cooperation is mainly stayed at the basic operation focusing on solving the problem of the guarantee of the source of students in the higher vocational

colleges and the promotion demand of the students in the secondary vocational schools.

Table 1 The policy and work direction for connecting middle and higher vocational education at the national level

| Document title | Document No. / date issued | Work orientation | | | | | |
|--|----------------------------|-------------------------|-------------------------------|-----------------------------|-------------------|--|----------------------------|
| | | Enrollment /examination | “Overpass” of talent training | Vocational education system | Curriculum system | Orientation of colleges and universities | Vocational education group |
| Decision of the Central Committee of the CPC on the Reform of the Educational System | May 27, 1985 | △ | | | | | |
| Decision of the State Council on Vigorously Developing Vocational and Technical Education | GF. [1991] NO. 55 | | | △ | | | |
| Opinions on Trial Implementation of Higher Vocational and Technical Education in accordance with New Management Mode and Operating Mechanism | J.F. [1999] NO. 2 | △ | | | | | |
| Decision of the State Council on Vigorously Promoting the Reform and Development of Vocational Education | GF. [2002] NO. 16 | △ | △ | | △ | | |
| Decision of the State Council on Vigorously Developing Vocational Education | GF. [2005] NO. 35 | | △ | | | | |
| Outline of the National Medium-and Long-term Education Reform and Development Plan (2010-2020) | July 29, 2010 | | | △ | | | |
| Notice of the Ministry of Education on the Issuance of the Action Plan for Secondary Vocational Education Reform and Innovation (2010-2012) | J.Z.C. [2010] No. 13 | △ | △ | | △ | | |
| Guidelines of the Ministry of Education on Promoting the Coordinated Development of Secondary and Higher Vocational Education | J.Z.C. [2011] No.9 | △ | | | | | △ |
| Several Opinions of the Ministry of Education on Promoting the Reform and Innovation of Higher Vocational Education and Leading the Scientific Development of Vocational Education | J.Z.C. [2011] No. 12 | △ | | | | △ | |
| Decision of the State Council on Accelerating the Development of Modern Vocational Education | GF. [2014] NO. 19 | | △ | △ | △ | △ | |
| Notice of the Ministry of Education and Other Six Departments on Issuing Planning for Construction of Modern Vocational Education System (2014-2020) | G.F. [2014] NO. 6 | | △ | △ | △ | △ | △ |
| Opinions of the Ministry of Education on Deepening the Teaching Reform of Vocational Education and Improving the Quality of Talent Cultivation in an All-round Way | J.Z.C. [2015] No. 6 | | △ | | △ | △ | |
| Notice of the Ministry of Education on Issuing the Action Plan for Innovative Development of Higher Vocational Education (2015-2018) | J.Z.C. [2015] No.9 | △ | | | | | |
| Notice of the State Council on Publishing the Implementation Plan of National Vocational Education Reform | GF. [2019] NO. 4 | △ | | △ | | | |

2.2 Teaching Level. Weakness in Improving the Effectiveness of the Connection Process in Spite of Achievements in the Staged Practice of Middle and Higher Vocational Education Connection

The connection of middle and higher vocational education, with the original intention of breaking the original education length limits between middle and higher vocational education and carrying out systematic training of vocational talents, is mostly carried out by integrated design and phased training, which is not only conducive to reducing the internal consumption of repeated teaching through resource integration, but also conducive to making up for the blind area of teaching deficiencies through overall design, and has now become an important way in the practice of vocational education, and plays an important role in the construction of "exchange" for vocational education personnel training, but still with shortcomings in the specific teaching process. Firstly, there are more or less cognitive deviations in the connection of middle and higher vocational education, some think that all majors can be connected, some also limit it to the level of academic improvement, and use it as a realistic guarantee to solve the source of students in secondary and higher vocational colleges. Secondly, generally too high proportion of promotion in the process of connection and secondary vocational performance as a single basis for promotion together affect the play of the subjective initiative of students and teachers, as well as the difficulty in follow-up teaching and management of students who fail to enter higher education after selection. Thirdly, the integrated teaching design needs to be realized under two different_education lengths and two management modes. The connection of higher vocational colleges and several secondary vocational schools in the same specialty will increase the difficulty of comprehensive coordination of teaching design, also the actual teaching differences existing in different secondary vocational schools will directly affect the difficulty of teaching implementation in the higher vocational stage. Fourthly, the existing integrated teaching design is carried out under the state of incomplete division of the national vocational qualification level. As a result, it is difficult to clearly define the training objectives of different stages of middle and higher vocational education, and the content of courses and vocational standards cannot be well integrated. Consequently, the insufficiency of the difference in the educational process between the secondary and the higher vocational stages and the insufficiency of the connection of them will inevitably reduce the overall design level of the talent training program. Fifthly, the same teaching requirements will be implemented in different ways due to the general lack of teaching standards and curriculum standards under the background of integrated teaching design, as well as the gap in teaching facilities, teachers' standards and teaching atmosphere between colleges, in the absence of effective communication and teaching discussion in the implementation process. Sixthly, the integrated teaching design needs to be carried out under the premise of mutual agreement between the two parties. However, in reality, teaching design is still formulated by higher vocational colleges only and then put into practice by the secondary vocational schools or formulated separately by them and then synthesized simply, which will lead to the selective implementation of secondary vocational schools to avoid practical difficulties or two different teaching designs implemented by them due to failure of integrated design, thus greatly reducing the effect. Seventhly, there is a general lack of curriculum integration and optimization before the implementation of talent training programs. There are not only repetitive contents or teaching blanks in the course teaching, but also difficulties in concentrating

the limited teaching resources on the cultivation of professional core competence.

2.3 Management Level. Normal Deficiency in Practical Process Management in Spite of Experience Accumulated in the Staged Practice of Middle and Higher Vocational Education Connection

Both middle and higher vocational education belong to the category of vocational and technical education, under the management of vocational education departments at the national, provincial and municipal levels, and two different departments, vocational education and higher education in local areas. In particular, the unified management mode adopted by the local education bureau for secondary vocational schools makes it difficult to reflect the special needs in the process of connecting middle and higher vocational education. Therefore, the connection of middle and higher vocational education is carried out under the conditions of different management atmosphere, different management norms and inconsistent concepts of cooperation. Thus, how to effectively manage the process is the weakest link in the connection of middle and higher vocational education. First, the colleges have attached great importance to the recruitment connection of the middle and higher vocational education, instead of the teaching connection. At present, it is difficult to reach a consensus on management at the inter college level because the connection is always led by the educational administration department but implemented by the teaching department. Buck passing or avoiding the responsibility becomes the normal state in the process of teaching promotion. Finally, cooperation crisis often arises because the problems cannot be solved in time. Second, most of the existing connections of middle and higher vocational education are academic connections at the level of educational system. Although the integrated design of talent training program has been carried out to a certain extent, the organic integration of management atmosphere and management system has not been involved, and the education practice is basically based on the original state of management. Although some colleges can also draw on some suggestions, but to a limited extent, it takes a long time for management accommodation and consequently the effectiveness of convergence is affected. Third, the existing cooperation lacks a more effective monitoring mechanism and information sharing system, which makes it difficult to get timely control of the teaching implementation status in secondary vocational schools, not only laying a foreshadow for the selective implementation of talent training programs, but also making it difficult for higher vocational colleges to truly play a leading role in the cooperation process. Besides, even if the cooperation mechanism of the process monitoring between the two colleges is established, the monitoring results will not be effectively executed due to the difference in management concept, management foundation and management standards, and then the whole connection process will enter a state of self-protection with self-cultivation. As time went by, the monitoring mechanism will be useless.

3. The Effective Way to Improve the Connection of Middle and Higher Education

According to the analysis of the actual state and the study of the development trend, in order to make a breakthrough in the process of the connecting middle and higher vocational education, a combination of measures and precise policy must be taken, and the systematic construction of the promotion strategy must be carried out from the policy, teaching and management dimensions, to improve the system and mechanism of assistance, teaching system and management system so as to

enhance the effectiveness of the connection of middle and higher vocational education as a whole.

3.1 Political Dimension: Research-led Integrated Innovation to Improve Systems and Mechanisms

Nowadays, the problems such as the incomplete matching of relevant laws and policies, unreasonable management system and weak service system for vocational education development supporting integrated training, which arise from the specific period of development in the process of connection of middle and higher vocational education, can be completely broken through by inspiration from international reference, wisdom gathering in practice summary and special research. Firstly, Australian TAFE vocational education model can be used for reference from the national level, to build a nationwide localized system, such as organizational structure, training objectives, curriculum setup, and education model, so as to provide a model reference for the high-quality connection of middle and higher vocational education. Second, the system of education length and management mode should be integrated, based on the systematic construction of modern vocational education system, starting from breaking the practical bottleneck in the process of connecting middle and higher vocational education, to change the level management of vocational and technical education (middle and higher education) into type management (vocational education) by local government, and change the original unified management of secondary vocational education into differential management based on practical needs, thus providing effective guarantee for the operation of practice. Third, a vocational education group should be built through cooperation with excellent colleges and enterprises, by exploring the operation mechanism and policy support according to the actual needs, and exploring the operation possibility of integration and optimization of inherent assets and secondary allocation of funds according to the development trend, so as to provide decision-making reference for deepening cooperation. Fourth, the functional orientation and executive subordination of cooperative colleges and universities in secondary and higher vocational colleges should be clarified by giving certain teaching and management autonomy, and releasing personality exploration space based on the implementation of common policies, so as to provide support from educational practice for policy improvement.

3.2 Teaching Dimension: Face-up to Reality-oriented Optimization Path to Improve Teaching System

The consistent talent training mode of middle and higher vocational education connection needs to be realized through the appropriate education and training path, not only limited by the actual policy and existing conditions, but also expanded by innovative thinking in order to explore a more effective path of education practice. Firstly, publicity should be strengthened, atmosphere should be established, and consensus should be fostered. Full consideration should be given to the cross-border characteristics and open-up enrollment characteristics of vocational education, so as to comprehensively improve the recognition of professional matching, curriculum connection and education length integration, thus providing theoretical support for the smooth implementation of the connection of middle and higher vocational education. Second, empirical research should be carried out based on the problem-orientation by on the one hand exploring the multi-path source selection method under the national allowable policy framework, consolidating the operational basis

of the establishment of the multi-elimination mechanism in the secondary vocational stage, moderately reducing the proportion of secondary vocational students transferred to higher vocational education, focusing on stimulating the endogenous motivation of students' learning; and on the other hand by exploring the effective operation and management mode that embodies the connecting characteristics of middle and higher vocational education according to the difference of training objectives in the secondary vocational stage, focusing on the organic integration of the common law and personality differences, focusing on meeting the training demands of different students. Third, on the basis of the experience gained in the connection of specific secondary and higher vocational colleges, the research on the connection of higher vocational colleges and several secondary vocational schools should be strengthened to explore more effective operation mechanism and implementation methods, and focus on resolving the current difficulties in operation and subsequent teaching. Fourth, according to the educational characteristics and realistic foundation of different stages of middle and higher vocational education, the integrated design of talent cultivation plan should be formulated by different specialties and the teaching strategy should be implemented in different stages, which can not only reflect the differences of objectives, but also show the career progress. Fifth, the integrated design of talent cultivation should be carried out under the overall framework of professional setup and industrial demand, curriculum content and vocational standards, teaching process and production process as well as the "double certificate" system of academic qualifications and vocational qualifications, and the corresponding professional standards, curriculum standards and teaching standards should be established to form an effective synergistic mechanism for talent cultivation. Sixth, it is necessary to establish operational norms and institutional constraints for the formulation and implementation of talent cultivation programs, cultivate a good cooperative operation mechanism between secondary and higher vocational colleges, and follow the laws of education and professional growth as well as meet the objective and realistic needs of different educational stages in the formulation of programs. Seventh, effective communication mechanism should be established before talent training program is implemented, and the secondary design of teaching should be carried out by combining efforts of both parties to improve and optimize the courses, contents and links again so as to reduce content duplication and teaching blanks on the one hand, and to focus limited teaching time on systematic training of professional knowledge, professional competence and professional accomplishment on the other.

3.3 Management Dimension: Problem-orientation and Innovative Promotion to Improve Management System

The connection of middle and higher vocational education is accomplished by stages in secondary and higher vocational colleges and universities, so there are not only cultural differences, but also institutional differences, resulting in differences in implementation results, which will inevitably affect the effectiveness of the connection, so it is not only important but also necessary to eliminate management differences. Firstly, the collaborative management platform at the college level should be established to expand the emphasis of college leaders on the connection of middle and higher vocational education from the enrollment to the whole process of teaching, so as to form a timelier and more effective teaching implementation mechanism, information communication mechanism and problem solving mechanism. Second, the necessary integration of intercollegiate culture and the

effective connection of management system should be carried out, and more consistent working concepts should be fostered to form a more consistent working style, so that self-supplementation and mutual supplementation of platforms become a fashion in teaching cooperation, and then gradually develop into a cultural consciousness in the process of connecting middle and higher vocational education. Third, a more effective process communication mechanism should be established to make problem discussion and teaching seminar a normal cooperative state, and to make the complementary advantages of teachers and facilities between colleges a conscious action under the system norms. Fourth, the quality monitoring mechanism of process operation should be established, the process execution should be integrated into the existing monitoring system of both sides, and the information management platform with certain authority should be opened for limited sharing of information resources, integrating dynamic monitoring, management early warning and real-time correction. Fifth, taking the opportunity of vocational college to promote the establishment of teaching diagnosis and improvement system, the connection of middle and higher vocational education should be integrated into the specific practice of diagnosis and reform, the self-consciousness and courage to face up to problems should be cultivated, and a working atmosphere for immediate correction should be formed to promote the continuous deepening and improvement of the connection of middle and higher vocational education. Sixth, a cooperative effectiveness evaluation mechanism (Fig. 1) should be established by specialties for secondary vocational stage. Indicator system should be established from two levels of process collaboration and talent cultivation, giving different connotations and corresponding weights for comprehensive evaluation, changing original artificial judgment to systematic comprehensive consideration, so as to enhance scientific and systematic management, not only to provide decision-making basis for subsequent cooperation or not, but also to accumulate material for management improvement and perfection.

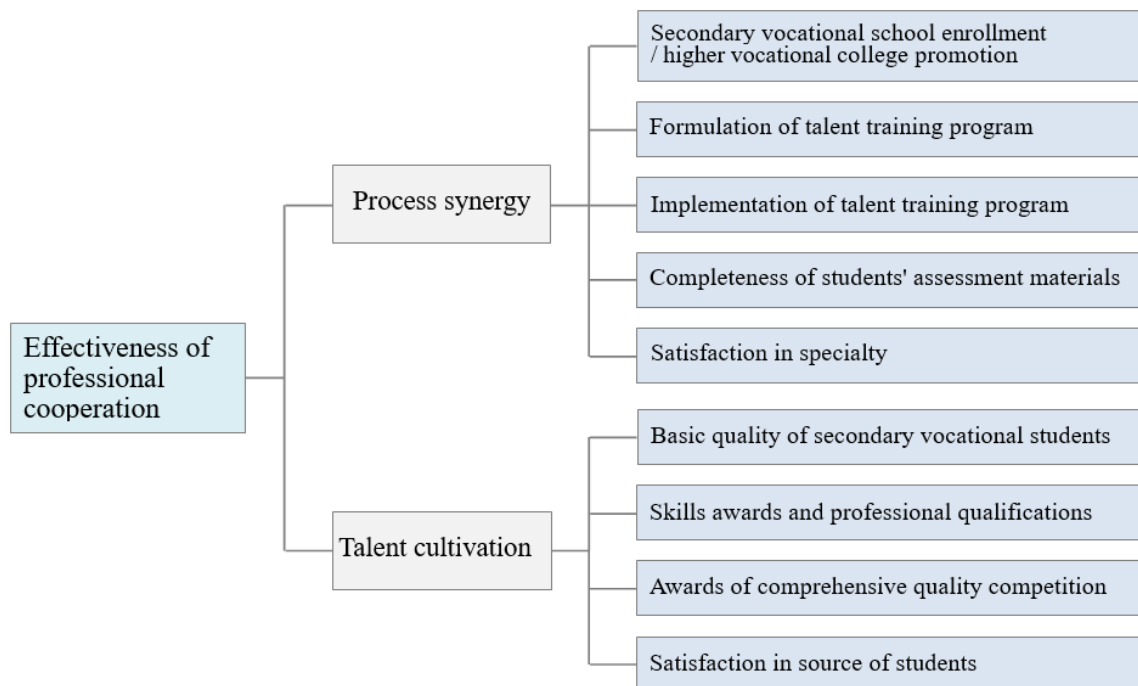


Fig. 1 Framework for evaluating the effectiveness of specialty cooperation of secondary vocational

schools in the process of connecting middle and higher vocational education

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