



CULTIVATION MODEL OF HIGHER VOCATIONAL TALENTS BASED
ON THE MILLION EXPANSIONS

by
RUOXUAN ZHOU

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR THE DEGREE OF MASTER OF EDUCATION
IN EDUCATIONAL ADMINISTRATION (INTERNATIONAL PROGRAM)

SOUTHEAST ASIA UNIVERSITY

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ABSTRACT

This research aims to discuss the relevant concepts of higher vocational education, talent training mode and enrollment expansion of millions. And on the basis of human capital theory and lifelong education theory, Taking C higher vocational colleges in Zhejiang Province as an example, the investigation and analysis of the current situation of higher vocational talent training mode under the background of million enrollment expansion, And concluded that the problems existing in the talent training mode of C higher vocational colleges in Zhejiang Province, Then summarize the causes of the problem according to the problem, Including the complex demand for talents, the serious tendency to educational qualifications, Serious homogenization of majors, insufficient depth of school-enterprise cooperation, The quality of the practice course is low, and the course goal is not clear enough, The school and enterprise connection is not close, the concept of examination has not been changed, The five cores of the enrollment expansion leading to the shortage of teachers and the imperfect training system, Finally, the corresponding solution to the problem is proposed, On the one hand, we hope to help China's higher vocational colleges to do a good job in talent training and construction, On the other hand, we hope that this paper can provide theoretical reference for relevant researchers.

Keywords: Million enrollment expansion; higher vocational colleges; personnel training; vocational education

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Chapter 1

Introduction

1.1 Statement of the problems

1.1.1 Background of the study

In China's higher education system, higher vocational education has the important responsibility of cultivating complex application talents, especially in the context of China's vigorous development of new manufacturing and technology industries, and the desire to "overtake" the fourth industrial revolution, the direction of talent training in higher vocational colleges has gradually changed from basic skills learning to new technology learning relying on the Internet, digitalization and automation. At the same time, the talents coming out of higher vocational colleges need to have good professionalism and even multi-dimensional comprehensive ability, so how to meet the current talent training direction and cultivate talents with comprehensive ability and quality has become a problem that higher vocational colleges have to face. In addition, since 2019, China has put forward the requirement of large-scale expansion of higher vocational education by 1 million people, which is jointly responded by several national departments, and the number of higher vocational colleges and universities expanding each year is rising, and the number of higher vocational colleges and universities will expand by 2 million people each year in 2020 and 2021, which not only plays an important role in boosting China's economic and social development, but also promotes the reform of vocational education. Especially under the dual background of the expansion of millions of students and the improvement of talents' ability, how to do a good job of education and meet the deeper meaning of the expansion of higher vocational education is the biggest challenge faced by higher vocational colleges nowadays.

1.1.2 Research significance

The research significance of this paper can be divided into theoretical significance and practical significance.

1.1.2.1 Theoretical significance

This paper investigates the cultivation mode of talents in higher vocational colleges under the background of million expansion by a combination of questionnaire and interview method, and uses the mathematical analysis method to obtain relevant data, which can be a theoretical reference basis for researchers and practitioners of higher vocational education.

At the same time, we should enrich and develop the theory of popularization of higher education. In 2002, the gross enrollment rate of China's higher education reached 15%, indicating that higher education has entered the popularization stage from the elite stage. In 2019, Fan Hailin, Deputy Director of the Department of Higher Education of the Ministry of Education, pointed out that "the gross enrollment rate of higher education in China has reached 48.1%, and it will soon enter the popularization stage from the popularization stage of higher education." After the enrollment expansion, the gross enrollment rate of higher education will inevitably exceed 50%, and the popularization stage of China's higher education has also entered the popularization stage. The study of talent training mode under the background of enrollment expansion has important theoretical value for promoting and developing higher vocational education.

1.1.2.2 Practical significance

This paper takes Zhejiang C vocational college as an example, and analyzes the questionnaire and interview on the talent cultivation mode of this college, from which the problems in the talent cultivation mode of this college and the causes of the problems are derived, and the corresponding solutions are proposed, which can help the practitioners of higher vocational colleges to reflect on their own problems in the process of talent cultivation on the one hand, and help the practitioners of

higher vocational colleges to reflect on their own problems in the process of talent cultivation on the other hand. On the one hand, it can help the practitioners of higher education institutions to reflect on their own problems in the process of talent cultivation, and on the other hand, it can help Zhejiang C higher education institutions and even all higher education institutions in China to do a good job in talent cultivation, meet the national requirements, further improve the employment rate of students and solve social problems.

1.2 Current status of domestic and international research

1.2.1 Current situation of domestic research

At present, the relevant domestic research can be divided into two categories: million expansion and higher vocational talents training. The first is the research related to million expansion. Zhou Jiansong and Chen Zhengjiang (2019) analyze the policy of million expansion and believe that the core purpose of million expansion is to solve the structural contradiction of society, strengthen the ability level of senior vocational students, cultivate more senior vocational talents with good employability and improve the employment rate of senior vocational students; He Huili (2020) believes that the impact brought by million expansion includes helping the country Li Mingjia (2021) attributes the significance of the million expansion to four aspects: promoting economic development, meeting the demand for talents, solving employment conflicts and optimizing the vocational education system; Fu Xueling (2020) analyzes the possible impact of the expansion on higher vocational colleges and proposes that Xue Feng and Wang Chengli (2019) argue that the expansion will lead to the transformation of student management, optimization of teaching methods, more targeted professional development and richer educational resources. Chen Yunshang (2021) argues that against the background of million expansion, higher vocational colleges still have problems such as the student source is too homogeneous, students' needs are difficult to meet, teaching resources are too scarce, cultivation mode is too monotonous, and evaluation system and evaluation standards are unreasonable, and also proposes solutions to correspond to the above points;

Zhang Zhengli and Li Yunfei (2020) attribute the challenges of talent cultivation in higher vocational colleges to the fact that higher vocational colleges The differences in learning ability, mental level and learning attitude between talents recruited by higher vocational institutions and those recruited by ordinary colleges and universities have a great impact on teaching management, teaching resources and teaching methods of higher vocational institutions; Luo Jianwen (2021) suggests that in order to do a good job in higher vocational education under the background of million expansion, it is not only necessary to reflect the characteristics of vocational education, but also to do a good job in academic registration management Wu (2020) argues that in order to do well in the expansion of higher vocational education and ensure the quality of higher vocational education, reform is needed from four perspectives: resource allocation, collaborative education, flexible management and innovative cultivation mode. In this direction, people such as Yang Xingfang, Zhou Yuanqing, Shi Fangzhen and Li Yuanyuan have put forward their own views on talent training mode, among which Wei Shokang (2004) believes that the talent training mode should include three major elements: purpose, content and method. In this paper, we expand Wei's talent cultivation model, and believe that the talent cultivation model can include five dimensions: cultivation goal, institution specialization, teaching curriculum, teaching content and method, and faculty team.

1.2.2 Status of foreign research

Compared with domestic research, there is no foreign research on China's million expansion policy, so in this research area, foreign research mainly focuses on talent training model. For example, the BTEC talent training model used in the UK takes school-enterprise cooperation as the core and students as the main subject of the curriculum, relying on curriculum planning to achieve alternate work-study and strengthen students' employability; for example, the CBE talent training model used in the US and Canada tends to cultivate talents' vocational job competence rather than stereotypical knowledge content. The TAFE model in Australia defines the training needs as skill-based talents and emphasizes the practicality of talents' abilities, teaching the practical skills that can be applied to jobs today and in the future

according to the future employment direction of talents. In Germany, as a major vocational education country, the core goal of talent training is to equip talents with the ability to turn design into action and to solve practical problems through operation. It can be seen that the foreign research tends to "use", that is, "what skills talents need to use, how to use the skills, and where to apply the skills", and these research contents play a greater reference significance for the development of vocational education in China.

Looking at the experience of vocational education in developed countries, we have a lot to learn: the training objectives of vocational education in the first developed countries highlight practical skills and personal abilities; Second, vocational education talents training in developed countries focuses on cooperation between schools and enterprises, and the most important is the combination of theory and practice. The development of social economy needs the promotion of vocational education, the development of vocational education needs the participation of enterprises, and the development of enterprises cannot be separated from practice. Vocational education finally returns to the cultivation of talents. Under the background of the current million enrollment expansion, the country's exploration and construction of higher vocational talent training mode is to better promote the overall development of education and economy in China.

1.3 Research Content and Methodology

1.3.1 Research content

In this paper, the concepts of higher vocational education, talent training mode, human capital theory and lifelong education theory are explained, and the current situation of talent training mode is investigated in higher vocational colleges in Zhejiang Province through a combination of questionnaire and interview. The problems in the mode of talent training in Zhejiang C colleges and universities include ambiguous training objectives and detachment from the needs of enterprises, lack of relevance and practical orientation in the design of majors, difficulty in improving students' vocational ability in the existing curriculum, failure to reflect students' main

position in teaching contents and methods, and lack of teachers and low teachers' ability. The problem of homogeneity is serious, the depth of school-enterprise cooperation is insufficient, the quality of practical classes is low, the goal of the curriculum is not clear enough, the connection between enterprises is not close, the concept of examinations has not yet changed, and the expansion of recruitment leads to a shortage of teachers, the training system is not perfect; finally, around the causes of the problem to put forward the corresponding solutions, including combining career-oriented, establish a clear training goal, do market demand research, realize the forecast of talent demand, around the demand for vocational ability. Finally, we propose solutions to the problems, including combining career orientation, setting clear training objectives, conducting market demand research, forecasting talent demand, focusing on vocational ability demand, setting flexible curriculum, dynamically adjusting teaching contents, improving teaching mode of curriculum, and actively expanding teachers and improving teacher training system.

1.3.2 Research methods

1.3.2.1 Literature review method

The main purpose of the literature review method is to understand the current research status of this type of topic by relying on the results of previous researchers. In this paper, the terms "million expansion", "higher vocational institutions", "talent training" and "vocational education" were used as key words. We also visited local municipal libraries and university libraries to understand the current status of research on million enrollment expansion, talent cultivation, human capital theory and lifelong education theory, in order to provide theoretical support for this study.

1.3.2.2 Questionnaire method

The questionnaire survey method is a research method to obtain the real situation of the respondents by issuing questionnaires and use them for mathematical and rational analysis to draw research arguments. The relevant data were used for mathematical analysis.

1.3.2.3 Interview method

The interview method is a research method that can provide valid information for the study even though it is difficult to quantify numerically from the verbal descriptions of the interviewees. In this study, interviews were conducted with school leaders, academic teachers and some students in the school as the research subjects to understand the research subjects' views on the talent cultivation mode of Zhejiang Province C higher vocational institutions and to provide support for the analysis of subsequent questions.

1.3.2.4 Mathematical analysis method

Numerical analysis method is a research method that relies on the processed data to summarize the regular trends and extract the key information from them for the article arguments. This paper uses SPSS 22.0 to conduct reliability validity analysis, mean and standard deviation analysis and difference test on the raw data obtained from the questionnaire survey to provide data support for the core ideas of this study.

Chapter 2

Literature Reviews

2.1 Concepts and Theories

2.1.1 Higher vocational education

In the Law of the People's Republic of China on Higher Education, higher vocational education is defined as a part of higher education, and higher vocational education is defined as the application-oriented education to cultivate vocational high school students and high school students. The level of talents' ability is also integrated with more dimensional ability while retaining application-oriented ability.

2.1.2 Talent cultivation mode

As early as 1990s, talent cultivation model has become a key topic for researchers and has been applied by a large number of higher education institutions, and in terms of definition, Wei Shokang believes that the talent cultivation model should include three major elements: purpose, content and method. This paper expands on Wei's talent cultivation model elements and believes that the talent cultivation model can include five dimensions: cultivation goal, institution specialization, teaching curriculum, teaching content and method, and faculty.

2.1.3 Million enrollment expansion in higher vocational education

In the 2019 Government Work Report, a large part of the report described the development of vocational education and encouraged more groups such as "ex servicemen, laid-off jobs, migrant workers and recent high school graduates" to apply for the exam; The 2020 Government Work Report again clarifies the policy and welfare of "expanding the enrollment of higher vocational colleges by 2 million people"; The Government Work Report in 2021 emphasizes "the three-year action goal of completing vocational skill upgrading and higher vocational enrollment expansion".

The systematic promotion of million enrollment expansion in higher vocational education and the implementation of quality-based enrollment expansion not only create opportunities for high-quality development of vocational education, but also build a new platform for higher vocational colleges to serve national major strategies and improve service levels. Vocational education adheres to the type development, long-term deepening of school enterprise cooperation, integration of industry and education, and combination of work and learning. Vocational education is basically growing with the development of local industries, and resonates with the local economy.

2.2 Literature Reviews

2.2.1 The significance of the million expansion of higher education institutions

(1) An important initiative for China to acquire quality human resources.

China is a country with a large population and abundant labor resources. With the continuous improvement of China's comprehensive national power, further improvement of production level and rapid development of economy and society, the country must speed up the pace of training a large number of high-quality skilled talents and improve the quality of workers in all aspects. The million expansions of higher vocational colleges and universities can not only make the majority of secondary vocational school students, high school graduates, veterans, laid-off workers, migrant workers and other groups receive higher vocational education, but also further expand the educated groups by increasing the types of students. At the same time, by improving the quality of existing labor force and obtaining more quality labor resources, it can transform China's "demographic dividend" into "talent dividend" and inject strong power into modern industries, thus improving the quality of products and services and promoting economic transformation and upgrading. The measure will promote the reform of higher vocational education in terms of schooling ideology and mode, and promote the high-quality development of higher education.

(2) Strategic significance of serving social development.

The expansion of higher vocational education is the expansion in the context of the popularization of higher education, which is the main purpose of stabilizing and expanding employment, accelerating the cultivation of various types of technical and skilled talents in line with the needs of social development, and has important strategic significance for exploring and changing the industries that have long relied on China's demographic dividend; it is a significant increase in the current popularization level of high school education which will further promote the development of higher vocational education into a new type of popularized education, effectively benefiting more. This will effectively benefit more fresh high school graduates, ex-servicemen, laid-off workers and migrant workers, and has far-reaching strategic significance for more young people to realize the value of life in creating social wealth; the increasingly extensive application of information network technology has laid the basic conditions for higher vocational institutions to carry out new research and exploration on teaching management, which will effectively promote the development of the reform of higher vocational education and provide more diversified development paths for different student sources, with the aim of The strategic significance of lifelong education mode change and accelerated development.

(3) Deepening vocational education reform and optimizing higher education structure.

Higher vocational education and general higher education are two different types of education, but they have the same important status. Higher vocational education should no longer refer to the mode of running general education, but should have its own characteristic development path. The expansion of higher vocational education has promoted the integration of vocational education, continuing education and lifelong education, promoted the reform of enrollment mode and enrollment target, deepened the understanding of society and enterprises about higher vocational education, improved the social popularity of higher vocational colleges and universities, and contributed to the sustainable and healthy development of higher vocational education. Faced with millions of enrollment

expansion, higher vocational colleges must adjust the direction of schooling, optimize the structure of schooling, give full play to their own advantages and characteristics, better adapt to social needs, face the market, serve the local community, and cultivate high-quality technical talents. The expansion of higher vocational colleges is conducive to mobilize the enthusiasm and initiative of related industries and enterprises to participate in vocational education, promote the cooperation between schools and enterprises, deepen the integration of production and education, and continuously improve the ability of related industries and enterprises to guide the innovation and development of higher vocational education.

2.2.2 The dilemma of talent cultivation mode in higher vocational colleges under the background of million expansion

(1) The contradiction between single enrollment standard and diverse student source.

There are two existing enrollment methods for higher vocational colleges in China, one is college entrance examination, and the other is secondary vocational school graduates and some high school graduates who enter through separate enrollment examination. These two admission methods are selected according to students' knowledge and cultural level test results. However, these two enrollment methods for migrant workers, retired military personnel, laid-off workers and other students, will highlight their disadvantages and mask their advantages. Students in this category have not experienced systematic learning during their education stage, and taking the traditional knowledge and cultural level exams will undoubtedly expose their disadvantages. The existing admission exams mainly assess their knowledge and cultural level, while the previous life experience and work experience, technical skill level, and professional advantages of migrant workers, retired athletes or military personnel, and laid-off workers are not included in the admissions exams, which undoubtedly conceals their advantages.

(2) The contradiction between curriculum setting and learners' ability demand
Most of the existing curriculum contents in higher vocational institutions are

not set according to the professional job ability, but around theoretical knowledge. This relatively fixed mode of course offering is mainly aimed at students who have no job experience. However, the enrollment expansion of higher vocational education has increased the proportion of high school graduates, veterans, laid-off workers, migrant workers and other students. Most of these students have job work experience, and there is a big difference in meeting vocational needs and improving vocational ability compared with traditionally enrolled students. They need more targeted course contents that meet their own characteristics. Therefore, the traditional curriculum cannot meet their learning requirements, which will greatly reduce their learning effectiveness and interest.

(3) The contradiction between teaching methods and learners' differences

Compared with the relatively single traditional student source, the "three types of people", namely ex-servicemen, laid-off workers and migrant workers, are more different in terms of learning experience, learning habits and cognitive ability. Therefore, the existing classroom teaching mode and full-time study mode of higher vocational education will be difficult to adapt to the diversified needs of learners. The learning time of the "three types of people", namely veterans, laid-off workers and migrant workers, is not fixed, their personality characteristics are very different, and most of them are facing multiple problems such as career transition, employment difficulties and life and work pressure. What they need are flexible teaching organization forms and effective teaching methods to ensure that they can deeply understand the relevant knowledge and master the technical skills in a short time, so as to effectively alleviate or solve the various outstanding problems they face.

(4) Insufficient teachers

With the existing school resources and conditions fixed, the increase in the number of students after the million expansion means the decrease of educational resources per student, and the decrease of educational resources per student will affect the quality of talent cultivation in higher vocational institutions is difficult to be guaranteed. Increasing the number of teachers and improving the professional quality of teachers are the urgent problems that need to be solved in the field of high

vocational education at present. The problem of teachers in higher vocational institutions is mainly reflected in three aspects: firstly, the number of teachers is insufficient after the expansion; secondly, the educational and teaching ability of some teachers can hardly meet the diversified teaching needs of complex students; thirdly, there is still a gap between the professional quality of teachers and the needs of industrial development. Therefore, only by expanding the supply of teachers and improving their professional level can we maximize the quality of talent training after the expansion.

2.2.3 The realization path of higher vocational talents training mode

(1) The government should increase the financial support for higher vocational education. The shortage of school funding will restrict the development of higher vocational colleges and universities, thus directly affecting the quality of talent cultivation. Therefore, the government should increase the financial investment in higher vocational colleges and universities, especially the special investment in the construction of practical training bases and the reform of talent cultivation mode.

(2) Accelerate the reform of teaching system, so that schools have more autonomy in hiring. Encourage schools to establish new hiring mechanisms and introduce high-end professional and technical talents and full-time teachers through "double-employment" and "talent introduction policy". Meanwhile, with the cooperation between schools and enterprises, high level professional and technical talents serving in enterprises are introduced to teach in schools, so as to solve the problem of insufficient teacher resources.

(3) Strengthen the construction of educational infrastructure of higher vocational colleges and universities, and run a high level of higher vocational education. It is never a simple matter to run a school diligently and frugally. We should abandon the backward philosophy of "low cost, small investment and big training" in running schools and pay attention to strengthening the construction of modern teaching facilities. Optimizing the allocation of resources, increasing policy supply and financial guarantee are conducive to strengthening the teaching infrastructure of higher vocational institutions, improving teaching quality and realizing

the coordinated development of school scale and school efficiency.

(4) Carry out school-enterprise cooperation projects. With enterprises as the leading, schools and enterprises jointly manage to form teaching and management teams, set talent training goals that meet the needs of social development, and optimize the existing allocation of educational resources. Establish a practical training base. From the students' point of view, students can be transferred directly to the enterprises for internship after completing theoretical education, and the practical teaching tasks are handled by high-level technical talents from enterprises, which forms a "double tutor" mechanism for education and teaching. From the teachers' point of view, high-level technical talents from enterprises and teachers from schools can cooperate in product development and technological innovation, so that higher vocational education can really serve the needs of social and economic development and the transformation and upgrading of industries.

2.3 Theoretical Foundations

2.3.1 Human Capital Theory

Human capital theory is not a new product born in recent years, as early as 1662, the English economist William Peddie mentioned the connection between labor and wealth in his work, which opened the door to human resources and gave birth to human capital theory; in the following centuries, human capital theory was gradually improved and developed until 1960, when Schultz's "On Human Capital Investment" It was only in 1960 that Schultz's "On Human Capital Investment" established the name human capital and the concept of human capital theory. In Schultz's work, human capital was defined as the theoretical product of having different forms of capital and relying on human beings to create capital, and education was also considered as the core investment method of human capital.

2.3.2 Theory of lifelong education

The theory of lifelong education emerged in the 1960s, and after UNESCO published "Learning to Live", the theory of lifelong education gradually spread to all

countries around the world, and after the end of the Cultural Revolution in 1979, China also took lifelong education as the national guiding ideology of education, and continuously improved the theory in the development for many years, and gradually formed the structure of "ability-oriented, people-oriented and value-creating". After the end of the Cultural Revolution in 1979, China also adopted lifelong education as the national guiding ideology of education, and gradually formed the structure of lifelong education, which is "ability-based, human-oriented and value-creating".

2.3.3 Internal and external relations of education

The task of studying pedagogy is to explore the essence, laws and practice, but what are the essence and laws of education? Pan Maoyuan, a Chinese scholar of higher education, put forward the theory of internal and external relations of education in 1980. The law of external relations of education discusses the relationship between education and politics, economy and culture. It requires that education must adapt to social development from multiple dimensions. The back relationship of education is to cultivate talents who can meet the needs of social development and develop in an all-round way.

The internal and external laws of education restrict and link with each other. The external laws of education restrict the internal laws of education, and the internal laws of education also affect the external laws of education. The cultivation of talents in higher education needs to follow the law of internal relations in education, take into account the law of physical and mental development and individual characteristics of the educated, coordinate the relationship between the educator, the educatee and the educational influence, and cultivate all-round talents; On the other hand, the cultivation of talents in higher education should also follow the law of external relations of education to cultivate talents who meet the needs of social development and can serve the society.

Chapter 3

Research Methodology

To understand the current situation of higher vocational talents cultivation mode under the background of million expansion, we need to analyze the data with a single school or multiple schools as a case study. In this paper, we chose Zhejiang Province C higher vocational college as the research object, and conducted questionnaires and interviews on five dimensions of cultivation objectives, professional settings, curriculum, teaching contents and methods, and faculty, so as to obtain the current situation of talents cultivation in this school and discover the problems in each dimension.

3.1 Survey Design

3.1.1 Purpose and target of the survey

This study relies on questionnaire survey and interview method to analyze the current situation of talent cultivation in Zhejiang Province's higher vocational colleges and universities, to find out the current problems and the reasons behind the problems, and to provide data support for the subsequent development of solutions.

In terms of survey subjects, this study targeted students from freshmen to seniors and social students in Zhejiang Province's higher vocational colleges and universities. 400 questionnaires were distributed and 370 were collected, with a recovery rate of 92.5%; the number of valid questionnaires was 355, with a valid recovery rate of 88.75%. 181 males and 174 females were interviewed, with no gender difference. ensure the integrity of the research data, this paper used the interview method to investigate the senior management of the school, academic management, as well as some students who participated in the questionnaire survey and social students, and analyze and process the data obtained by the questionnaire survey method and the interview method.

3.1.2 Survey design scheme

The questionnaire of this study was designed with 16 questions, using the structured configuration of Likert's 5-point scale, involving five dimensions, with questions assigned under each dimension: 1-3 questions: cultivation goal dimension; 4-6 questions: professional setting dimension; 7-9 questions: curriculum setting dimension; 10-12 questions: teaching content and method dimension; 13-16 questions: faculty team dimension.

In this study, different interview outlines were developed according to the respondents. The interview outlines of the senior management of the school were based on the training objectives, professional settings and faculty team; the interview outlines of the academic administrators were based on the curriculum, teaching contents and methods and faculty team; the interview outlines of the full-time students and social students included all five dimensions at the same time.

3.1.3 Survey Implementation Method

In this study, the preliminary version of the questionnaire was first distributed to 30 students of a certain major, and the content was adjusted according to the students' filling situation and feedback.

3.1.4 Reliability and validity analysis results

In terms of reliability analysis, this study used Cronbach's alpha value for reliability determination, and the specific measured values are shown in Table 3-1.

Table 3-1 Reliability analysis of the survey questionnaire

Dimensionality	Number of terms	Cronbach's alpha
Training objectives	3	0.940
Specialization	3	0.888
Curriculum	3	0.862
Teaching content and methods	4	0.959
Faculty	3	0.881
General	16	0.929

According to the results, the lowest Cronbach's alpha coefficient for each dimension in this questionnaire was 0.862, the highest was 0.959, and the average value was 0.929, concluding that the questionnaire has good reliability and can be used for subsequent studies.

In terms of validity analysis, KMO and Barlett's sphericity test were used to determine the correlation of the variables in the questionnaire, and the specific measured values are shown in Table 3-2.

Table 3-2 KMO and Barlett's sphericity test analysis

KMO		0.827
Barlett's spherical test	Approximate cardinality	15501.002
	df	838
	Sig	0

As can be seen from Table 3-2, the KMO values exhibit strong variable correlation characteristics, demonstrating the excellent structural validity of this study and the use of the data for follow-up studies.

3.2 Findings

After completing the data collection, this study verified the correlation of each dimension and determined that all dimensions had excellent correlation with each other, and then analyzed the survey results as follows.

3.2.1 Overall situation analysis

After completing the data collection and analysis using Excel 365 for data table gridding, the obtained data are shown in Table 3-3.

Table 3-3 Analysis of the overall situation of the talent cultivation mode survey

Dimensionality	Number of items	Average	SD
----------------	-----------------	---------	----

Training Objectives	3	3.81	0.718
Professional Settings	3	3.72	0.674
Curriculum	3	3.70	0.678
Teaching content and methods	4	3.81	0.746
Faculty	3	3.68	0.713
General	16	3.75	0.781

From Table 3-3, it can be seen that the average of all five dimensions reaches more than 3.68, which exceeds the basic value of 3, proving that the situation of talent cultivation mode in Zhejiang C senior colleges is relatively optimistic; in the process of judging the average of each dimension, it can be seen that the highest scoring dimension is 3.81 points for teachers' teaching methods as well as cultivation objectives, followed by 3.72 points for professional setting, 3.70 points for curriculum setting, and the lowest is The lowest score is 3.68 points for faculty members.

3.2.2 Analysis of subdimensions

In each subdimension, the questionnaire data are shown in Table 3-4.

Table 3-4 Analysis of subdimensions

Dimensionality	Title	Average
	1	3.72
Training Objectives	2	3.76
	3	3.98
	4	3.64
Professional Settings	5	3.71
	6	3.73
	7	3.68
Curriculum	8	3.59
	9	3.79
Teaching content and	10	3.73

methods	11	4.13
	12	3.62
	13	3.60
	14	3.63
Faculty	15	3.69
	16	3.74

According to Tables 3-4, Question 3 (Do you think the training direction of your major is in line with the direction of application-oriented talents?) has the highest mean value of 3.98 among the training objectives. The average value of question 1 (Do you know the cultivation goal of your major?) is the highest at 3.98, while the average value of question 2 (Do you know the cultivation goal of your major?) is the lowest at 3.71. In the dimension of professional setting, question 6 (Do you think the ratio of theoretical to practical courses in the current curriculum is reasonable?) The highest mean was 3.73 for question 6 (Do you think the ratio of theoretical to practical courses in the current curriculum is reasonable?), while the lowest mean was 3.64 for question 4 (Do you think your ability can meet the requirements of enterprises? In terms of curriculum, question 9 (Do you think the current curriculum structure is reasonable?) has the highest mean of 3.79. In terms of curriculum, question 9 (Do you think the school's current curriculum structure is reasonable?) has the highest mean of 3.79, while question 8 (Do the practical classes you are studying now often take place in companies?) has the lowest mean of 3.59. In terms of teaching content and methods, question 11 (Do you think teachers at your school often use information technology to teach?) The highest mean was 4.13, while the lowest mean was 3.60 for question 13 (Do industry or corporate experts often participate in teaching the school's curriculum?) The lowest mean was 3.60 for question 13 (Do the school's teachers often involve industry or business experts in teaching?). The highest mean was 3.74 for question 16 (Do teachers in the school grasp the important and difficult points of the course when conducting the course?), while the lowest mean was 3.63

for question 14 (Is the structure of teachers in your major dominated by teachers from enterprises? had the lowest mean of 3.63.

3.2.3 Difference test analysis

After completing the data analysis, this study conducted a difference test on the data to determine the differences between the data of different genders in each dimension, and the specific results of the difference test are shown in Table 3-5.

Table 3-5 Gender difference test analysis table

Dimensionality		M	F	T
Training Objectives	Average	3.93	3.86	1.29
	SD	0.773	0.719	
Professional Settings	Average	3.89	3.81	1.31
	SD	0.738	9.722	
Curriculum	Average	3.89	3.82	1.62
	SD	0.766	0.718	
Teaching content and methods	Average	3.92	3.79	1.59
	SD	0.755	0.759	
Faculty	Average	4.01	3.82	1.93
	SD	0.761	0.734	
General	Average	3.93	3.84	1.29
	SD	0.754	0.695	

As can be seen from Tables 3-5, there were no significant differences in the data for the different dimensions between the genders, but for each dimension, the mean of the scores was higher for males than for females and the standard deviation of the scores was higher for males than for females in most dimensions.

Chapter 4

Results of Data Analysis

4.1 Problems of talent cultivation mode in Zhejiang C colleges and universities under the background of million expansion

4.1.1 Blurred cultivation objectives, detached from the needs of enterprises

According to the results of the survey questionnaire, it can be seen that the talents in Zhejiang C colleges and universities have a low evaluation of the cultivation goal, especially in the degree of understanding of their professional cultivation goal, which is lower than other dimensions. In addition, the focus of talent cultivation in Zhejiang C vocational colleges is still on the academic level, and some senior management of colleges still hope that students can upgrade their qualifications through college education, which leads to the contradiction between the ability of talents and the demand of enterprises and cannot meet the goal of vocational education talent cultivation.

4.1.2 Lack of relevance and practice orientation in professional settings

In the dimension of professional setting, the average value of students is lower compared with the training objectives and teaching content methods, especially in question 4, the average value is as low as 3.64, even in the highest rated question 6, the average value of its score is still not more than 3.8, it can be seen that most of the talents in Zhejiang Province C higher vocational colleges do not agree with the degree of professional setting, and the number of professional clusters in the professional setting of the school is small. Most of the majors are widely offered in higher vocational institutions, such as computer and communication, etc., and the majors of e-commerce and accounting have tended to be saturated in the market, which makes it difficult to employ talents, fully reflecting the lack of relevance of the

professional settings in Zhejiang C higher vocational institutions; in addition, some students said in the interview that the professional courses they learned in school are difficult to be applied to the work of enterprises, and they still need further training after entering the enterprises. This also reflects the lack of practical orientation in the professional settings of Zhejiang C colleges and universities. (This also reflects the problem of lack of practical orientation in the professional settings of Zhejiang C colleges and universities. (The "orientation" can be expanded)

4.1.3 The existing curriculum can hardly improve students' vocational ability

In the dimension of curriculum, the average value of question 8 is only 3.59, which shows that the integration of practical courses with enterprises is low, and in the process of in-depth observation in this higher vocational college, we found that most of the practical courses are completed in the practical training base, and there is no cooperation with enterprises in the practical training base, so students cannot contact with the actual working environment of enterprises, which is ineffective in improving students' vocational ability. In addition, according to the interviews, most students think that only about 30% of the knowledge they learned in school can be used in their future jobs, which also shows that the current curriculum is detached from students' future vocational ability.

4.1.4 Teaching content and methods do not reflect students' main position

In the dimension of teaching content and method, the mean values of question 10 and question 13 are low, which proves that students think the teaching content is not related to the operation training on the one hand, and their teachers lack practical experience in enterprises on the other hand, while in question 12, students think their main position in the classroom is insufficient. The teachers in Zhejiang Province C colleges and universities also lack the awareness of students' subjectivity and choose the course content based on their own experience and the course method based on lecture-based teaching, which leads to a low sense of students' participation in the

course and the teaching content cannot stimulate students' interest and reflect their subjectivity.

4.1.5 Lack of teachers and low teacher competence

In the dimension of teaching team, the average value of question 14 is only 3.63, and the average value of question 15 is only 3.69. It can be seen that most students in Zhejiang Province C higher vocational colleges and universities do not recognize the level of the current teaching team, and from the dimension of teaching content and method, question 13 also shows that the current teaching team has fewer teachers with working experience in enterprises, and the construction of dual-teacher team is not effective. Some teachers' abilities are limited to teaching theoretical courses, and the number of teachers with both theoretical and practical abilities is insufficient.

4.2 Reasons for the problems of talent cultivation mode in Zhejiang C senior vocational colleges under the background of million expansion

4.2.1 Complexity of talent demand and serious tendency of academic education

On the one hand, the rapid development of information technology and the change of industrial structure make the demands of talents and enterprises more diversified, so the traditional mode of training talents in higher vocational colleges and universities can no longer meet the demands, on the other hand, some senior management of higher vocational colleges and universities in Zhejiang Province still have a serious tendency of academic education, and the penetration of the theory of academic qualification only leads to In the environment of "one million expansion", the evaluation method of academic education only makes the school unable to recruit talents with rich practical experience from the "four types of students". In the interview, the academic management also said that "our full-time students have good grades, and many students come to study with the mentality of going to college, so the school also takes college as one of the important assessment indicators". The

talents coming out of the school have good academic background, but do not know how to practice, naturally it is difficult to meet the needs of the enterprise talent.

4.2.2 Serious homogenization of majors and insufficient depth of school-enterprise cooperation

At present, the professional settings of Zhejiang C vocational colleges and universities are too homogeneous, and a large number of majors are in the state of talent saturation or even talent surplus, meanwhile, the number of ace majors is still small and lack of competitiveness in the province, and the weak majors have only a few students in a class, and the level of teachers' team is not enough. As a result, the school is unable to follow up the changes in the employment demand of enterprises and the professional ability of talents becomes outdated.

4.2.3 The quality of practical courses is low and the objectives of the courses are not clear enough

The problem of curriculum setting in Zhejiang Province C vocational colleges is mainly caused by the following two reasons: First, the practical courses in this college are detached from the real environment of enterprises, and the practical courses lack the practice of real environment, and the contents of practical courses are detached from theories, simple and less in quantity, and neither quality nor quantity can be guaranteed; Second, Zhejiang Province C vocational colleges pay too much attention to the level of students' theoretical knowledge mastery when setting courses, and ignore the value of practice. Secondly, when setting up the courses, Zhejiang C colleges and universities pay too much attention to the level of students' mastery of theoretical knowledge and ignore the value of practice, which leads to unclear objectives of the practice courses and even practice for practice.

4.2.4 The connection between schools and enterprises is not close, and the concept of examination has not yet been changed.

At present, the teaching contents and methods of Zhejiang C higher vocational colleges are not closely connected with the news and the concept of examinations

has not yet changed, and it is because of these problems that the teaching contents are old and the methods and rationality are low. On the other hand, some teachers in schools still have the concept of examination-based education, and do not consider mobilizing students' subjectivity when teaching the courses, but simply instill knowledge into students, even in the practical classes, they only convey "what is, how to do" to students, and students lack the opportunity to explore and practice independently, so the degree of knowledge digestion is naturally affected.

4.2.5 Shortage of teachers and imperfect training system due to expansion

Since the expansion of enrollment in 2019, Zhejiang C higher vocational colleges have been responding to the national requirements for continuous expansion, but the rapid growth of student population and the difficulties in improving the number of teachers' teams have produced great contradictions, and the low level of close cooperation between schools and enterprises has led to a low number of part-time teachers, which also seriously affects the competence level of teachers' teams; secondly, the current teacher training system of Zhejiang C higher vocational colleges also has problems in The problem of teachers emphasizing theory rather than practice when teaching for students also exists in teacher training, and the cultivation of dual-teacher teachers is not effective. Teachers can only bring basic skills teaching to students in practical courses, and practical teaching is not deep enough to help students in their future work.

Chapter 5

Conclusion and Discussion

5.1 Establish a diversified enrollment system

Under the background of one million expansion, the enrollment targets are mainly "Four types of students", i.e., migrant workers, retired soldiers, laid-off unemployed people and new vocational farmers. The traditional culture level test for fresh graduates cannot be used as a single evaluation criterion for recruiting "four types of students". It is necessary to improve and reform the existing enrollment methods and actively develop new enrollment channels to apply to the enrollment in the context of the million expansions, so as to recruit excellent talents.

First, the school should change the original way of thinking about enrollment. Higher vocational colleges and universities should go deep into the student market, become operators and marketers of education, strive to build a strong professional brand, cultivate professional and technically excellent talents, and publicize and promote our educational services. Secondly, establish the system of "vocational education college entrance examination". Establish and improve a comprehensive enrollment system combining cultural knowledge, professional skills, and strengths and specialties, etc. By flexibly evaluating students' existing theoretical knowledge, skills and experience, and appropriately raising or lowering the entrance threshold, we can provide various ways for different student types to enter higher education and receive education. Third, the enrollment should be precisely aligned with the needs of regional development. For students from low-income families, ethnic minority students in remote areas, etc., implement special programs for precise poverty alleviation, ethnic minority programs, etc., for precise enrollment.

5.2 Combining career orientation and setting clear cultivation goals

For example, social students who are already working in the corresponding positions often come to higher vocational colleges with the purpose of mastering high-end skills and obtaining higher-level technician certificates, while social students

who are not working in the corresponding positions mainly aim at mastering more skills and increasing employment opportunities. Therefore, when setting the training objectives, students from different sources can be divided into different classes, so as to pay attention to the career orientation and to adjust the training objectives differently, so that students from different sources can master good vocational ability and also meet the demand of academic ability of talents.

5.3 Do good research on market demand and realize talent demand forecast

In most cases, the demand of talents represents the demand of the market for talents, talents need employment, the market needs talents, the two belong to the relationship between supply and demand, if higher vocational colleges cannot meet this relationship between supply and demand, it will certainly lead to the problem of difficult employment of talents. In addition, for the majors that cannot adapt to the market environment, the noise can be gradually reduced or eliminated, and for the majors with strong market demand in the future or their ace majors, the recruitment can be expanded appropriately.

5.4 Flexible curriculum setting around the demand of vocational ability

When setting the curriculum, higher vocational institutions must ensure the flexibility of the curriculum, different students have different abilities. Therefore, higher vocational institutions can set up different courses according to different student sources and different learning ability levels, for example, increase the proportion of elective courses and add more elective courses to provide students with more choices, and set up flexible practice courses and diversified practice courses for students, so that students can "choose one more" and pick a practice course they need most to study.

5.5 Dynamic adjustment of teaching contents and improvement of course teaching mode

In order to ensure that the teaching content can keep up with the changes of enterprises or industries' needs, the teaching content should be dynamically adjusted according to the market demand, for example, if an industry starts to use a certain advanced technology on a large scale and enterprises urgently need talents who master the technology, the school can adjust the existing teaching content and add the technology into the curriculum, so that the curriculum content can be more accurate and can meet the enterprises' needs for talents. Secondly, in terms of course teaching mode, teachers also need to clarify the main position of students in the classroom, and can refer to the teaching mode of ordinary undergraduate colleges and universities, relying on guided teaching method, task teaching method, online and offline hybrid teaching method, etc. to strengthen students' subjectivity in the classroom, so that students can change from passive recipients of knowledge to active acquirers, thus improving students' understanding of knowledge.

5.6 Actively expand the teacher team and improve the teacher training system

In response to the problem of insufficient number and capacity of the existing teachers, Zhejiang Province C higher vocational colleges need to take dual-teacher teachers as the guide and improve the existing teacher training system at the same time. First of all, Zhejiang C colleges and universities need to strengthen cooperation with enterprises and invite professionals and excellent employees from enterprises to teach on campus.

Professionals and experts can participate in theoretical teaching, while excellent employees can serve as masters and students as apprentices in practical teaching, so as to realize teacher-apprentice teaching; secondly, professional teachers who lack practical experience in enterprises should be sent to partner enterprises regularly to participate in actual production positions and accumulate practical experience, so as to gradually establish a dual-teacher team; finally, the teacher

training system inside and outside the university should be strengthened, and industry experts should be invited to teach teachers advanced knowledge in the industry, so as to improve teachers' practical ability. Finally, we strengthen the training system of teachers inside and outside the school, invite industry experts to teach teachers advanced knowledge in the industry, improve teachers' practical ability and market sensitivity, and help teachers get rid of the concept of exam-oriented education.

5.7 Optimize resource allocation and increase financial investment

Insufficient funding not only restricts the development of higher vocational institutions, but also affects the quality of talent cultivation. Therefore, the government needs to increase the financial investment in higher vocational colleges and universities, especially to increase the special investment in the construction of internship and training bases and the reform of talent training mode in higher vocational colleges and universities. In addition, higher vocational colleges and universities can increase the living subsidies for students from low-income families and minority students in remote areas, broaden the coverage of scholarships and grants, so as to achieve the funding and assistance as much as possible to ensure that all the students enrolled can receive education.

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