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## **Study on the Influential Factors of Comprehensive Ability of Double-Qualified Teachers in Higher Vocational Education Based on Structural Equation Model**

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### **Abstract:**

*According to the study of China's Higher Vocational Colleges Double-qualified Teachers training mode of current characteristics, namely occupation accomplishment factors, theoretical knowledge and practical operation ability factors from the factors affecting teachers' comprehensive ability of three factors, the construction of higher vocational teachers' comprehensive ability factors influencing structural equation model. Serving teachers in the 10 national key vocational colleges, which in 5 provinces in eastern coastal areas of China, as the research object, the analysis of the collected information and data, using the path of adjustment hypothesis and the empirical testing further path correction software AMOS 20, finally got three factors on the comprehensive ability of the standard impact path coefficient of support materials to improve the vocational powerful demonstration of double-qualified teachers teacher training system.*

**Keywords:** Vocational College; Double-Qualified Teachers; Comprehensive quality; Influencing Factors; Structural Equation Model; Path Analysis

### **1. Introduction**

Pestalozzi, a famous Swiss educator, spoke highly of vocational education: "People's education is down to earth with serious professional training, which is more important than any textbook." (Pestalozzi,1993) [1]After nearly 20 years of development, modern vocational and technical education in our country has basically formed the concept of teaching development based on theoretical education and practical application as the ultimate goal. Although in recent years our country has paid great attention to the development of vocational and technical education. The United States, Austria and other vocational education in developed countries teaching mode, but in the actual operation, especially higher vocational education, is still in accordance with the professional settings - curriculum - classroom teaching - output of talent to train vocational education students. The reason, the important point is due to the double-qualified teachers in higher vocational colleges teachers lack the overall quality of training. In view of the status quo of cultivating double-qualified teachers in our country at this stage, our country mainly focuses on the training of theoretical training and practical operation, which is different from that of the developed-country western and eastern countries who focus on vocational accomplishment training for higher vocational teachers. Take the example of national training of double-qualified teachers in higher vocational colleges: By the end of 2015, the national training covered all 19 major specialized classes in higher vocational colleges and completed more than 100,000 training tasks. Among the national-level training institutions, 92% of the national demonstration schools and backbone schools account for 70.67% of enterprises participating in the project, and 55.77% of the total domestic training sponsored by higher vocational colleges are sponsored by enterprises or enterprises and higher vocational schools Colleges and universities jointly organized on-job training accounted for 39.04% of the total. In all the training courses, lectures and practical integration time accounted for 34% and 47.33% respectively, accounting for 11.57% and 7.1% respectively for practice and corporate visits. (Liu Xin, Wei Wei and Liu Xiaochen, 2016) [2]However, the vocational training level of double-qualified teachers in vocational colleges is almost zero.

In order to effectively promote the development of comprehensive ability of double-qualified teachers in higher vocational colleges, this paper starts from the three factors that influence the double-qualified teachers in higher vocational colleges: professional accomplishment, theoretical knowledge and practical operation, combined with Structural Equation Model (SEM) to explore the impact of the three major factors on the improvement of comprehensive ability of "double-qualified" teachers in higher vocational education through the correlation analysis of the path coefficient among elements. The

main purpose of this study is to explore whether vocational literacy training has a significant impact on the improvement of comprehensive ability of double-qualified teachers in higher vocational colleges; the impact of theoretical knowledge training and practical training on the improvement of comprehensive ability of double-qualified teachers in higher vocational colleges. What is more important than the light one. The main structure of this paper is based on the literature review and hypothesis theory model, and on this basis, the research methods and empirical results are clarified. Finally, the conclusions and recommendations of this study are put forward based on empirical research.

## 2. Literature Review and Hypothesis

As mentioned in the previous section, the research content of this paper is to explore the impact of the three major factors of vocational qualifications, theoretical basis and practical operation on the comprehensive ability of double-qualified teachers in higher vocational colleges. Therefore, this section will be combined with previous studies, from the professionalism, theoretical basis and practical operation of these three major factors in order to review the previous literature, and based on the assumed deduction.

### 2.1. Professionalism Factor

Broad sense of professionalism is mainly reflected in two major aspects of the workplace and life: In addition to the necessary professional skills, dedication and morality is the necessary literacy in the workplace; personal qualities and morality is essential for life quality. The narrow sense of professionalism mainly refers to the norms and requirements of the profession, which is a comprehensive quality manifested in the professional process, including professional ethics and professional awareness. (Zaidan,2011) [3]The professional literacy factors of this study are mainly understood from its narrow concept and do not include the professional factors of professional skills.

According to the cultivation of vocational qualifications of higher vocational teachers, international scholars put forward different views from different dimensions. Toth believes that in the process of cultivating vocational teachers, basic professional courses are indispensable, but in addition, the improvement of teachers' professional qualifications can not be ignored. Starting from basic teaching skill courses, Toth proposed to add virtual e-learning items to the module of post-training teachers: to enhance the ability of vocational teachers to operate and manage the knowledge system through simulation and simulation so as to promote the acquisition of professional basic knowledge. (Toth,2007) [4] According to Toth's discussion on vocational accomplishment training, the main point of view is that the improvement of professional accomplishment of teachers contributes to the acquisition of basic professional knowledge. According to this theory, the following assumptions are drawn:

- H1: Double Professional Teachers' Professional Quality Improvement Has a Significant Positive Influence on Theoretical Knowledge Acquisition.

Rhoades pointed out in his article the current system of professional teacher training, especially that of higher vocational teachers, is extremely flawed, Mainly manifested in the formation of outstanding professionalism teachers training. Good professional ethics, self-discipline, and intrinsic learning ability not only help to promote the enthusiasm of follow-up professional theoretical knowledge, but also turn theory into practice and a catalyst for stimulating practical intentions. (Rhoades,2015)[5] Based on the Rhoades on teacher professionalism and practical ability to explain the operation, we can draw the following assumptions:

- H2: The improvement of vocational qualifications of double-qualified teachers in higher vocational education has a significant positive impact on the development of practical operational skills.

Starting from the perspective of the current social environment, advocating lifelong learning and career competitiveness, James proposed that the content of vocational accomplishment training should be integrated into the current vocational teacher training system after focusing on the background of vocational teacher training policies in Socrates and England, focusing on cultivating teachers Active learning awareness and lifelong learning philosophy, and passive learning as active learning. It emphasizes the development of a kind of thinking and habits. Although this thinking habit can not play a significant role in improving teachers' overall abilities in a short period of time, In the long run, this kind of internalization and active behavior can indirectly influence the improvement of comprehensive ability of teachers through follow-up theoretical study and practical operation. (James,2011) [6] According to James on teacher professionalism, theoretical knowledge and practical operation of the relationship between the three exposition, the following assumptions can be drawn:

- H3: The improvement of professional qualifications of double-qualified teachers in higher vocational education has a significant positive impact on the development of comprehensive ability.

### 2.2. Theoretical Knowledge Factor

Theoretical knowledge is the concrete manifestation of rational abstract thinking, that is, the result of rational thinking or contemplation. (Astrid,2015)[7] The scope of theoretical knowledge is very broad. It can include general explanations of natural operations, and sociological and anthropological categories such as humanities and social sciences, social evolution, and historical development.(Medicine, 2008)[8] The theoretical knowledge factors described in this article mainly refers to the basic theoretical knowledge in vocational and technical education, including disciplinary expertise,

cultural and social knowledge and teaching theory. Much of this knowledge is available from books and is an explicit and accessible knowledge.

Internationally, the system design for improving the comprehensive ability and practical skills of higher vocational teachers is basically based on the traditional educational theory. For example, Aarreniem pointed out through the research on the current teacher training programs in major developed countries that the barriers to teacher training in the future will come from the digitization and mobility of teachers' work environments. In order to meet the challenges that may arise in the future training of teachers in vocational education and Uncertainties, thus designing and developing a system of vocational teacher training and management based on digital learning and mobile learning. The aim is to provide a practical service platform for vocational education institutions and vocational teachers in the world. Through this A modern educational theory learning platform, teachers in the virtual context will be acquired by the theoretical knowledge and the actual operation of the combination, thereby enhancing the practical ability to operate. (Aarreniem,2016)<sup>[9]</sup> In order to make the related theoretical knowledge acquired by higher vocational teachers fit in with the practice in the later period and solve the ubiquitous problem between theory and practice in current educational circles, Melnikovaz, after studying and analyzing the macroscopic background of entrepreneurship education in vocational teacher training, Entrepreneurship, Entrepreneurship Education, Entrepreneurship, Entrepreneurial Capabilities, Social Contexts and Macroscopical Levels. Using exploratory and interpretative paradigms and goal-oriented approaches, we have established a set of dynamic vocational teachers that are suitable for social development. Theoretical training system, the development of this system provides a realistic basis for the assumption of comprehensive ability development in the framework of teacher education in vocational education.(Melnikovaz,2015)<sup>[10]</sup> Based on the above research on theoretical knowledge, practical ability and comprehensive ability to explore, we can draw the following assumptions:

- H4: Double knowledge teachers in higher vocational education have a significant positive influence on the ability of practical operation.
- H5: Double knowledge teachers in higher vocational education have a significant positive effect on the overall ability improvement.

### 2.3. Practical Operating Factors

According to Marxist practice, the so-called practice is all social objective material activities by which people can availablely transform and explore the real world. Its basic characteristics are: objectivity, initiative and social historicity. (Karl Heinrich Marx, 1955) <sup>[11]</sup> The practical operation factor in this article refers to whether the double-qualified teachers in higher vocational colleges can apply them to the actual operation after gaining theoretical knowledge, which is a process of externalizing the internalized knowledge system.

The British scholar Connect, after obtaining the help of the National Skill Commission, investigated and assessed the practical skills and professional abilities of serving teachers and ordinary teachers in colleges and universities and pointed out that there are great inequalities between the current British teachers of vocational education and academic teachers This profoundly affects the learning experience curve of vocational teachers. In addition, due to the separation of pre-service training and post-training system of vocational education teachers in the United Kingdom, the actual situation of post-partum academic work has been brought into full play. In response to this situation, Connect starts with two short-term goals and long-term planning, and takes practical ability training as the core. It points out that the key measure to improve the learning experience curve of VTEs lies in the establishment of a unified training system that balances theoretical learning and practical operational relationships, Pre-service training module to improve the proportion of practical training to practical ability to promote the overall quality of teachers to enhance.(Connect,2010)<sup>[12]</sup> Nielsen starts with the different factors that influence the role of VTE teachers. It analyzes that there are such problems as the low vocational status, the scattered profession, different teacher training and recruitment methods, and points out that the key to improving teachers' overall ability lies in Theoretical guidance into practical action. After analyzing the general path model of current vocational education teacher training and post professional training, Nielsen put forward three major theories to meet the future challenges: vigorously develop the teaching method of vocational education; establish a policy learning platform to promote teachers' participation in the formulation of vocational education policy and Professional curriculum reform process; establishing a community of practice in vocational education and training of teachers to cultivate teachers' ability to innovate.(Nielsen,2010)<sup>[13]</sup> According to the above research on the relationship between practical operating factors and comprehensive ability, we can draw the following assumptions:

- H6: The improvement of practical operational ability of double-qualified teachers in higher vocational education has a significant positive impact on the improvement of comprehensive ability.

The following is the theoretical model of this study:

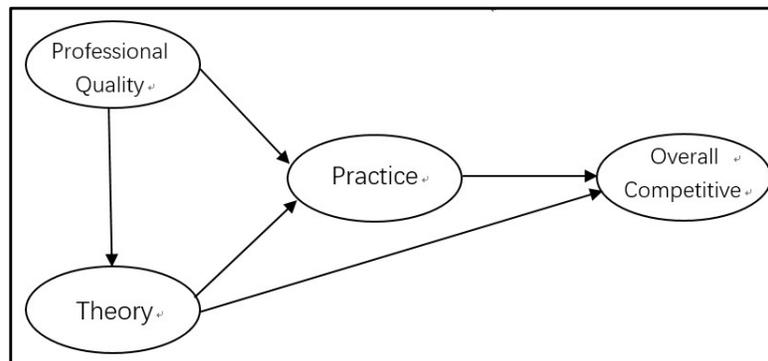


Figure 1: Higher Vocational "Double Teacher" Comprehensive Quality of the Theoretical Model of Factors

### 3. Research Methods

#### 3.1. Study Variable Explanation

According to Diamantopoulos and Siguaw (2000), each latent variable in the structural equation model has at least 3 items in the facet, and 5 to 7 are the best theoretical research. In the profession There are 5 observation variables in this aspect of literacy, and the indicators do not interfere with each other independently. Endogenous variables a total of three, respectively, for the theoretical basis, practical operation and comprehensive ability<sup>[14]</sup>. As with the exogenous variables, there are five observed variables in each of the three endogenous variable facets, and each indicator does not interfere with each other and does not cross other potential factors. Bollen(1989)<sup>[15]</sup>

Among them, the theoretical basic factors are influenced by professional literacy, at the same time they have an impact on the practical operation and comprehensive ability; the practical operational factors are influenced by the factors of professional literacy and theoretical knowledge and have an impact on the comprehensive abilities; The direct influence of theoretical knowledge factors and practical operational factors and the indirect influence of professional literacy factors did not affect other factors. The observed variables of all the above latent variables were measured by Likert Scale 5, 5 means strongly agree, 4 means agree, 3 means neutral, 2 means disagree, 1 means strongly disagree.

#### 3.2. Data Collection and Analysis

In this study, field researchers surveyed 5 provinces and cities in the eastern coastal areas to investigate 10 key vocational colleges nationwide. A total of 500 questionnaires were sent out, the questionnaire recovery rate reached 100%, invalid questionnaires and 43 variation points were deleted, 457 valid questionnaires and 91.4% questionnaires were valid, which accords with the requirement of SEM analysis samples proposed by Jackson (2003) between 200 and 500 copies<sup>[16]</sup>.

The reliability analysis of SPSS16.0 showed that the Cronbach's alpha of the whole scale was 0.934. The Cronbach's alpha values of the four latent variables including professional accomplishment, theoretical knowledge, practical operation and comprehensive ability were 0.832, 0.839, 0.776 and 0.859 respectively, all meet the requirements of more than 0.7. Therefore, the scale has high consistency and reliability.

In the validity analysis, the KMO values of professional accomplishment, theoretical knowledge, practical operation and comprehensive ability were 0.932, 0.809, 0.912 and 0.893, all of which ranged from 0.8 to 0.9, which were suitable for factor analysis. The Bartlett's test of the square test showed that the statistical significance of the statistical significance was 0.000. The cumulative variance of the response factors was 75.369%, 72.476%, 78.142% and 73.171% respectively. These data show that the validity of the scale structure designed in this paper can be accepted.

### 4. Experimental Results

SEM is a statistical method that combines factor analysis with path analysis and can be used to simultaneously verify the hypothesis of the effect and indirect effect between observed or potential variables.(MacCallum and Austin,2000)<sup>[17]</sup> According to the analysis of the double quality comprehensive structural equation model established in this study, the article uses IBM's AMOS 20 software to conduct statistical analysis and hypothesis testing. Compared with other SEM analysis software such as LISEREL, EQS, Mplus, the biggest advantage of AMOS is that without programming, the SPSS data file can be directly read and used for analysis of the entire composition without the need to do file cutting, so it is widely used in Management, education, psychology, economy and other fields.

#### 4.1. Model Evaluation

This study SEM model has four facets, namely: vocational accomplishment, theoretical knowledge, practical aspects and comprehensive capabilities. The degree of freedom for each facet is  $5 \times (5 + 1) \div 2 = 15$  df. There are 5 residuals, 4 loadings and 1 variance. The degree of freedom is larger than the estimated parameters, Meet the model positive definite requirements. After performing the confirmatory factor analysis (CFA), the parameter estimation, convergence validity and fitness index of each facet are obtained, as shown in Table 1. Convergence validity module standardization factor load Qua2,

The3, Pra3, Pra5 is 0.691,0.686,0.683,0.676, the rest are more than 0.7 standards, with good convergence validity. Qua2, The3, Pra3 and Pra5 do not meet the ideal standard of 0.7. However, based on the acceptable theory that the factor loading in Hair et al (2009) is 0.6-0.7, the four Keep.<sup>[18]</sup>The CR coefficients of the four facets are 0.879,0.852,0.834,0.938, respectively, which are the theoretical standards of more than 0.5. The AVE values are 0.595, 0.534, 0.501 and 0.754, respectively, which exceed the theoretical standard of 0.5. (Fornell and Larcker, 1981)<sup>[19]</sup> The facets have good convergence validity. In addition, the five major fitness indexes of facets are within the acceptable range: X<sup>2</sup> / DF values are less than 3; GFI, AGFI values are greater than 0.9; RMSEA values are less than 0.08, so the four major facets in the model are in line CFA basic requirements.

Facets	index	Model parameter estimation					Convergence validity				Model matching index				
		Non-S.R.W	S.E.	C.R. (t-value)	P	S.R.W	SMC	C.R.	AVE	X <sup>2</sup>	DF	X <sup>2</sup> /DF	GFI	AGFI	RMSEA
Profession alism	Qua1	1				0.749	0.561								
	Qua2	0.844	0.079	10.656	***	0.691	0.477								
	Qua3	0.973	0.084	11.648	***	0.773	0.598	0.879	0.595	13.57	5	2.71	0.994	0.969	0.056
	Qua4	0.730	0.053	13.654	***	0.882	0.778								
	Qua5	0.834	0.054	15.334	***	0.749	0.561								
Theoretical knowledge	The1	1				0.744	0.554								
	The2	1.066	0.098	10.913	***	0.718	0.516								
	The3	0.908	0.087	10.490	***	0.686	0.471	0.852	0.534	13.73	5	2.75	0.986	0.949	0.078
	The4	0.924	0.078	11.848	***	0.751	0.564								
	The5	0.875	0.055	15.888	***	0.759	0.576								
Practice operation	Pra1	1				0.722	0.521								
	Pra2	1.020	0.101	10.139	***	0.717	0.514								
	Pra3	1.019	0.104	9.791	***	0.683	0.466	0.834	0.501	13.41	5	2.68	0.975	0.963	0.067
	Pra4	1.280	0.136	9.408	***	0.738	0.545								
	Pra5	1.117	0.125	8.911	***	0.676	0.457								
Double ability	OC1	1				0.753	0.567								
	OC2	1.215	0.075	16.252	***	0.934	0.872								
	OC3	1.173	0.075	15.669	***	0.878	0.771	0.938	0.754	11.26	5	2.25	0.993	0.971	0.056
	OC4	0.907	0.049	18.402	***	0.869	0.755								
	OC5	0.835	0.052	16.177	***	0.897	0.805								

Table 1: double qualification model verification factor analysis table

Good model fit is a necessary condition for the analysis of theoretical models of SEM analysis .(Byrne,2010)<sup>[20]</sup> The main measures were the chi-square (x<sup>2</sup>) test, the ratio of chi-square to the degree of freedom (x<sup>2</sup>/df), fitness index (GFI), adjusted fitness index (AGFI), mean approximation error Root Mean Square Error of Approximation (RMSEA), Non-Normed Fit Idex (NNFI), Icremental Fit Index (IFI), Comparative Fit Fit Index, CFI) and so on. As shown in Table 2: In the double-qualification model of higher vocational education with the fitness index, we can see that the values have reached the ideal fit fitness standards. It should be explained that the final result of model analysis p value is 0.105, greater than 0.05, accepting the null hypothesis Ho, indicating that there is no difference between the two covariance matrices, that is, the hypothetical model is assumed to be correct There is no difference between the expectation covariance matrix and the sample covariance matrix).

Moderation index	Ideal requirement standard	Two teachers' quality model
x <sup>2</sup>	The smaller the better	207.735(P=.105)
x <sup>2</sup> /df	<3	1.259(df=165)
GFI	>0.9	0.964
AGFI	>0.9	0.942
RMSEA	<0.08	0.030
SRMR	<0.5	0.456

Moderation index	Ideal requirement standard	Two teachers' quality model
NNFI	>0.9	0.962
IFI	>0.9	0.992
CFI	>0.9	0.992
Hoelter's N(.05)	>200	317
ECVI	The smaller the better	0.407
AIC	The smaller the better	119.683
BIC	The smaller the better	226.605

Table 2: High-Quality Double-Qualified Model with Fitness Index

4.2. Hypothesis Test

Hypothesis testing is mainly reflected by the coefficient between the latent variables in the analysis model. Shown in Fig. 2 is based on theoretical model data analysis of the resulting standardized analysis model. There are both direct and indirect impacts between facets and facets. In order to better explain the influence validity of each facet, the path coefficients in Fig. 2 are transformed into Table 3 by means of collating and calculating, and they are corresponding to the theoretical assumptions one by one.

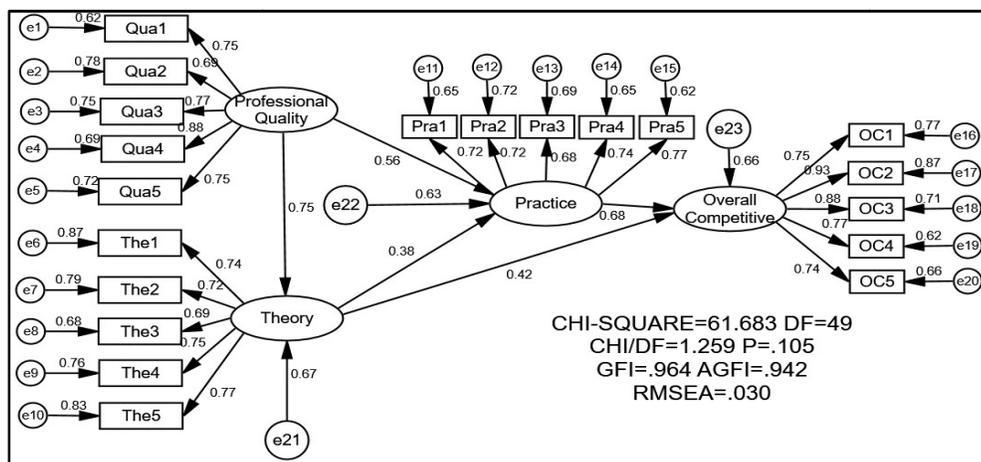


Figure 2: Higher Vocational Double-Qualified Teacher Comprehensive Quality Factors Affecting Structural Equation Model Diagram

From Table 3, we can draw the following points: 1. The six expected hypothesis of the expected relationship with the actual relationship, are positive, there is no negative correlation coefficient; 2. After the direct effect, the indirect effect and the total effect of After calculation, the total effect of path coefficients of H1, H2 and H3 are respectively 0.75, 0.56 and 0.89, and the results of H1 and H3 are significant, which shows that improving the professional qualifications of double-qualified teachers in higher vocational schools can also significantly improve the double- The teacher's theoretical basis and comprehensive ability, that is, every unit of professional accomplishment raised by 1 unit, can raise both the theoretical knowledge factor of 0.75 unit and the comprehensive ability factor of 0.89 unit. Surprisingly, the final results of H2 and theoretical hypotheses The results did not show significant results. Combining with the actual situation of the development of double-qualified teachers in higher vocational education, it is possible that this is caused by the mismatch between production, education and supply and demand under the current training mode. Hypothesis H4 and H5 that the theoretical knowledge of the practical operation and comprehensive ability of the effects were 0.38 and 0.678, H5 results were significant, indicating that the improvement of theoretical knowledge of teachers' comprehensive ability to improve significantly; H4 effect is not significant, the assumption does not hold . The fundamental reason is that the current theory of teaching in our country is severely out of touch with the real world, so that the theoretical knowledge of books can not be used in specific practical operations. Therefore, the result of the team is not surprised. 4. Assuming H6 that the effect of practice on comprehensive ability is 0.68, the results show that significant improvement of teachers' practical ability has a positive and significant effect on their overall quality improvement.

Finishing the above statements come to the conclusion that assuming H2 and H4 final effect is not significant, so the assumption does not hold; the remaining assumptions H1, H3, H5, H6 holds. According to the hypothesis of total establishment, the total influence of comprehensive ability is ranked in the following order: the factor of teacher's professional accomplishment has the greatest influence on the improvement of comprehensive ability as 0.89, which further influences comprehensive ability through the indirect influence on theoretical knowledge and practice operation; Factor, and the influence coefficient is 0.68; finally, the theoretical knowledge factor is 0.678, which is divided into the direct impact on comprehensive ability of 0.42 and the indirect impact of practical operation by 0.258. Although the theoretical factor of total influence coefficient is similar to the practical operation factor, Factors still need to make use of practical factors have an impact on the comprehensive ability, so its actual validity is lower than the actual operational factors.

Hypothesis	Parameter path	Expected relationship	Path coefficient effect
H1	Theory <--- Professional Quality Direct effect The total effect	+	0.75 0.75
H2	Practice <--- Professional Quality Direct effect The total effect	+	0.56 0.56
H3	Over Competitive <--- Professional Quality Indirect effect a Indirect effect b Indirect effect c The total effect	+	$0.56 \times 0.68 = 0.3808$ $0.75 \times 0.42 = 0.315$ $0.75 \times 0.38 \times 0.68 = 0.1938$ $0.3808 + 0.315 + 0.1938 = 0.89$
H4	Practice <--- Theory Direct effect The total effect	+	0.38 0.38
H5	Over Competitive <--- Theory Direct effect Indirect effect The total effect	+	0.42 $0.38 \times 0.68 = 0.2584$ $0.42 + 0.2584 = 0.6784$
H6	Over Competitive <--- Practice Direct effect The total effect	+	0.68 0.68

Table 3: Double-Quality Model Parameter Path Coefficient Effect Table

## 5. Conclusion and Suggestion

### 5.1. Research Conclusions and Suggestions

The main purpose of this study is whether we can improve the comprehensive ability by cultivating the professional qualifications of higher vocational teachers. At the same time, it explores the influence validity of the theoretical knowledge factors and practical operational factors on the comprehensive ability improvement as well as the interrelationship between various factors. From the hypothesis test statement we have drawn: 1. The professional quality factor has a significant effect on the overall ability to enhance; 2. The practical operation factor has more influence on the comprehensive ability improvement than the theoretical knowledge factor; 3. The improvement of the professional quality factor at the same time The theoretical knowledge of factors to enhance the effect is equally significant.

In view of the above conclusions, it is suggested to train the vocational qualification training modules of "double-qualified" teachers in higher vocational colleges on the two major modules of the teaching of theoretical knowledge and practical skills. Take the United States as an Example: After-service training in American higher vocational teachers is mainly based on the training of teachers' professional qualifications. In addition to its unique "poor education" curriculum, vocational teachers also need to acquire labor from the state and its state Law, including employment relationship, child labor law, minimum wage and overtime, unemployment compensation and liability; in addition, how to establish and utilize the resources of enterprise expert committee and how to effectively search and utilize network resources are also covered in the whole post-training Inside. Drawing on the advanced experience and empirical research results of vocational training in the United States, we can also set up basic courses for teachers' professional literacy such as professional ethics education, labor laws and regulations, network resource search and enterprise resource utilization so as to provide theoretical basis for future theoretical studies and Lay a solid foundation for the practice of operation, turn explicit pressure into explicit power, and passively study into active learning. In addition, it is necessary to change the backward concepts of traditional academic theory and light practical operation, pay attention to the practical operation and application ability of double-qualified

teachers in higher vocational training, increase the investment in practical base, set up a trinity training mode of "production, study and research" Balance Theory and Practical Development.

### 5.2. Insufficient Research

Due to the small number of personnel and the difficulty of nationwide investigation, this study only focuses on serving dual-qualified teachers in key vocational colleges in the developed eastern provinces and autonomous regions. The results are still lacking in universality. Therefore, in the next stage of research, the scope of the investigation may be extended to key and non-key vocational colleges in various provinces and cities in the country. At the same time, the research object will be extended to ordinary teachers and associate teachers to explore whether the theoretical results of this study are generally applicable Sexuality and rationality.

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