

The Evaluation of Double-Qualified Teacher's Professional Standard in Double High Level Vocational Colleges

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Abstract: As a key task of Double-High Program (DHP), building a high-level Double-Qualified Teachers' Faculty is the key to support the reform and development of higher vocational education in the new era, and has become the focus of research in the field of higher vocational education. In the process, the identification of professional indicator elements is the core of faculty development. In this paper, through extensive document retrieval and analysis, 48 index elements were first selected, and then 40 index elements were screened out again through the behavioural event interview method, thus basically determining the index system that constitutes the professional standards for dual-teacher teachers.

1. Introduction

On December 18, 2019, the Ministry of Education and the Ministry of Finance announced the list of high-level vocational schools and high-level majors' construction programs with Chinese characteristics, referred to as the Double-High Program (DHP). Double-High Program (DHP) is for independent specialized higher vocational colleges, insisting on the quality firstly, the reform-oriented state, and the support for excellence and strength. The selection of the project does not distinguish the nature of ownership, geography, or size, and focuses on supporting the higher vocational colleges with high employment rate, high graduate level, high social support, and good school-enterprise integration, good practical training, and good quality of education. A total of 197 higher vocational colleges have been selected as the first round of construction of Double-High Program (DHP), in which 56 higher vocational colleges have been selected as the construction of high-level vocational schools and 141 higher vocational colleges have been selected as the construction of high-level majors' construction. The Double High Level Vocational Colleges (DHLVC) in this article refers to the 197 higher vocational colleges were selected as the first round construction from Double-High Program (DHP).

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Faculty is the key to support the reform and development of higher vocational education in the new era, and has become the focus of research in the field of higher vocational education. Many studies have conducted a series of researches on the identification criteria, training mode, teacher evaluation, teacher training, incentive system and part-time teachers.

Yang Fan etc. [1] explored how to better complete the training of "double-qualified" teachers in teacher training colleges and universities from the construction of a "double-qualified" teacher training mechanism. Laling Dong [2] started with the importance of accelerating the construction of "double-qualified" teachers in preschool education major in college-level normal colleges in remote areas of northwest China, and outlined the connotation of "double-qualified" teachers in preschool education major in higher vocational colleges through literature review. Weixia Wang etc. [3] established an evaluation model based on 14 evaluation indexes of teachers' "double-qualified" ability; She adopted Delphi - entropy weight method to weight the evaluation index, and then combined TOPSIS method to evaluate the evaluation object. In the evaluation of TOPSIS method, the traditional TOPSIS weight method was improved, and the entropy weight-delphi method was used to determine the index weight, which was a combination of subjective and objective, making the evaluation system more objective, scientific and reasonable. Chunshu Liang etc. [4] thinks that the construction of double-qualified faculty is an inevitable demand for the transformation and development of colleges and universities as well as the cultivation of applied talents. In order to solve the problem of the insufficient number of double-qualified teachers, they constructed the three-dimensional competency model of individual-position-organization after clarifying the basic situation of double-qualified teachers, and further clarified the competence that double-qualified teachers should possess. Finally, they took this model as the guide and relied on the two platforms of schools and enterprises to carry out teaching practice. Hua Wang [5] discussed the development of "Double-qualified" teachers, and put forward several proposals to draw on the existing experience. They are the study in the German dual system, the teachers' access system, the training mode, the assessment mechanism, and the circumstances to construct double-qualified teaching staff and so on. Yue Wang [6] analysed the current situation of teachers training, and discussed the facing problem. According to these problems, emphasized the necessity of double-qualified teachers' cultivation and provided the specific training ways. Dong Li [7] thinks that the grass-roots teaching organization is the decisive force to achieve the talent training goal of applied undergraduate colleges, and it is directly related to the quality of applied talent training. By analysing these problems, he proposed corresponding solutions are to improve the construction level of grassroots teaching organization in applied undergraduate colleges. Xingxing Zhang etc. [8] expounded the meaning and importance of the construction of double-qualified teachers, and then analysed how to use the resources of educational groups to promote the construction of double-qualified teachers. Xiaoyi Lu [9] mainly analysed the current situation and problems of the construction of "double qualified teachers" in higher vocational colleges, and put forward relevant countermeasures according to the author's working experience.

However, from the perspective of research, most scholars analysed the causes of the problems in the construction of Double-Qualified Teachers' Faculty in double higher education from a certain perspective, so as to put forward corresponding countermeasures, lacking a comprehensive theoretical and practical systematic research with multiple perspectives. From the research logic, most of the literature is based on the current situation and problems, briefly analysed through survey data, or obtained the view of path construction through direct interviews, lacking of the basis and support of the path of Double-Qualified Teachers' Faculty construction in Double High Level Vocational Colleges (DHLVC).

Therefore, only by formulating a good professional standard for Double-Qualified Teachers' Staff in Double High Level Vocational Colleges (DHLVC) can we provide a more rigorous,

systematic and comprehensive perspective and logical support for the construction of "double-teacher" teachers in double-high institutions. This paper will use literature review method and behavioural event interview method to conduct targeted research to screen out the professional standard indicators of Double-Qualified Teachers in Double High Level Vocational Colleges (DHLVC).

2. Basic Selection

In this paper, 245 papers from the last 10 years were collected from various databases (CNKI, WANFANG, CSCD, AMS, ACM, Emerald, Ei Compendex, Springer, SCI-E, and Wiley-Blackwell) and official policies (State Council of The People’s Republic of China and Ministry of Education of The People’s Republic of China). After noise processing, 145 representative papers were finally selected. We made a dataset of keywords from 145 articles, and used machine learning methods to select 48 keywords as the basic index elements according to their frequencies are given in Table 1.

Table 1: Frequency of professional standard elements

Number	Element	Frequency	Number	Element	Frequency
1	Ideological and Political Quality	139	25	Corporate Technology Services	71
2	Teacher Moral Cultivation	136	26	Paper Publication Level	65
3	Basic Education Background	127	27	Planning Textbook Writing	64
4	Professional And Technical Titles	125	28	Curriculum Civics Implementation	62
5	Teaching Resource Development	113	29	Instructional Design Capabilities	60
6	1+X Faculty Certification	112	30	Science and Technology Transformation	58
7	Corporate Practice Experience	110	31	Science and Technology Awards	57
8	Education Policy Interpretation	109	32	Corporate Technology Consulting	56
9	Corporate Technical Training	101	33	Various Types of Standard Development	54
10	Vocational Education Philosophy	99	34	Career Enhancement	53
11	On-Site Practical Guidance	98	35	Industry Impact Level	53
12	Industry Corporate Experience	95	36	Horizontal Technology Development	52
13	Teaching Implementation Level	89	37	Level of Teaching Reflection	52
14	General Knowledge Level	87	38	Research Ability	51
15	National Patent Application	85	39	Innovation And Entrepreneurship Guidance	51
16	Teaching Competition Level	84	40	Practice Assessment Organization	49
17	1+X Certificate Guidance	84	41	Practical Training Base Maintenance	48
18	Lifelong Learning Philosophy	83	42	Student Work Orientation	44
19	Professional Theoretical Knowledge	81	43	Document Writing Skills	40
20	Publication of Academic Monographs	80	44	Foreign Language Proficiency Enhancement	35
21	Teaching Achievement Award	77	45	Teaching Management Capability	28
22	Professional Qualifications	76	46	School- Enterprise Cooperation Capability	22
23	Skill Competition Guidance	75	47	Industry Vision Capability	19
24	Personality Mindset Characteristics	74	48	Level of Philosophical Literacy	10

3. Elements Setup

In order to screen the professional criteria elements more scientifically, behavioral event interviews were conducted with the staff of Beijing Municipal Education Commission, managers and teachers of double-high institutions with the help of STAR method, and the contents of Table 1 were distributed to the interviewees after the interviews, who further supplemented and improved the initially selected professional criteria elements. The basic information of the interviewees is shown in Table 2.

Table 2: Basic information of the interviewees

	Gender		Age			
	Male	Female	Under 30 years old	31-40 years old	41-50 years old	Over 51 years old
Interviewee	13	7	2	6	8	4

Combining the results of the interviews, the qualified standard elements screened by the literature review method were modified and improved, and a checklist of professional standard elements for Double-Qualified Teachers in Double High Level Vocational Colleges is given in Table 3.

Table 3: Verification of professional standard elements

Number	Element	Number	Element
1	Ideological and Political Quality	21	Teaching Achievement Award
2	Teacher Moral Cultivation	22	Professional Qualifications
3	Basic Education Background	23	Skill Competition Guidance
4	Professional And Technical Titles	24	Personality Mindset Characteristics
5	Teaching Resource Development	25	Corporate Technology Services
6	1+X Faculty Certification	26	Paper Publication Level
7	Corporate Practice Experience	27	Planning Textbook Writing
8	Education Policy Interpretation	28	Curriculum Civics Implementation
9	Corporate Technical Training	29	Instructional Design Capabilities
10	Vocational Education Philosophy	30	Science and Technology Transformation
11	On-Site Practical Guidance	31	Science and Technology Awards
12	Industry Corporate Experience	32	Corporate Technology Consulting
13	Teaching Implementation Level	33	Various Types of Standard Development
14	General Knowledge Level	34	Career Enhancement
15	National Patent Application	35	Industry Impact Level
16	Teaching Competition Level	36	Horizontal Technology Development
17	1+X Certificate Guidance	37	Level of Teaching Reflection
18	Lifelong Learning Philosophy	38	Research Ability
19	Professional Theoretical Knowledge	39	Innovation And Entrepreneurship Guidance
20	Publication of Academic Monographs	40	Practice Assessment Organization

4. Conclusions

48 index elements were first selected, and then 40 index elements were screened out again through the behavioural event interview method, thus basically determining the index system that constitutes the professional standards for dual-teacher teachers. In the end, professional standard elements for Double-Qualified Teachers in Double High Level Vocational Colleges are given in this paper.

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