

Construction of the Developmental Evaluation System and Guarantee Mechanism of Higher Vocational Students Based on Achievement Certification

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Abstract: Higher vocational education quality evaluation is the baton of higher vocational education development, and its core is student evaluation. This paper points out the realistic dilemma of insufficient student evaluation in higher vocational colleges. Taking the characteristics of higher vocational education as a breakthrough, based on the framework system of the achievement certification system, it designs six first-level indicators and 20 second-level indicators, constructs the evaluation index system of higher vocational students' development, and puts forward the corresponding operation guarantee mechanism. It will provide references for higher vocational colleges to improve the talent training quality and carry out student evaluation scientifically and systematically.

Keywords: Achievement certification; Vocational college students; Developmental evaluation

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1. Introduction

Since entering the new era, China has attached great importance to the construction of an educational evaluation system^[1]. In 2020, the Overall Plan for Deepening the Reform of Education Evaluation in the New Era clearly put forward the new concept of “four evaluations,” which is to “strengthen process evaluation, explore value-added evaluation, and improve comprehensive evaluation.” By 2035, an education evaluation system featuring the characteristics of the times, highlighting Chinese characteristics, and reflecting the world level will be basically formed^[2]. It indicates that the reform of vocational education evaluation has become the key to improve the quality and excellence of vocational education, and exploring the development evaluation with value-added evaluation and comprehensive evaluation as the core will become the action guide for vocational colleges to carry out education evaluation reform in the future^[3].

In 2020, the Action Plan for Quality and Excellence in Vocational Education (2020–2023) issued by the Ministry of Education and nine other departments proposed to “give full play to the important role of

vocational education in serving lifelong learning for the people, promote the construction of the national qualification framework, and establish a mechanism for the recognition, accumulation, and conversion of learning results of education and training at all levels and of all types”^[4]. The learning achievement certification system is the basic system in the construction of the lifelong learning system. It aims to establish rules for the certification and conversion of various learning outcomes, support the personalized development of learners and the integration and optimization of educational resources. Vocational education is an important bridge for the mutual recognition of different types of learning outcomes. Improving and constructing the learning achievement certification system is not only the promotion basis for building a lifelong learning society, but also a strong support for the reform of talent training quality evaluation system in higher vocational colleges^[5].

Constructing a scientific, perfect, and reasonable student evaluation system, implementing the reform measures of student evaluation, achieving the goal of student evaluation reform, and promoting the steady improvement of talent training quality and the characteristic development of the school are the main tasks and key research topics of the current education evaluation reform in higher vocational colleges^[6]. Due to the late start of the research on the student evaluation system of vocational education in China, there is still a certain gap with the Western developed countries in the design of evaluation content, methods, and standards^[7]. With reference to the learning achievement certification system, the developmental evaluation index reflecting students’ lifelong learning ability and comprehensive quality and the evaluation and operation mechanism for evaluating talents’ development potential from multiple perspectives should be established to promote the transformation of students’ learning effect evaluation from the endpoint evaluation to the developmental evaluation and scientifically measure the growth and development of higher vocational students, which is conducive to improving the quality of talent training in higher vocational colleges. It helps to promote the high-quality development of higher vocational education.

2. The realistic dilemma of student evaluation in higher vocational colleges

Although under the guidance of the current development concept of quality education and the promotion of the relevant policies of national education evaluation, the student evaluation in higher vocational colleges breaks through the traditional situation of taking theoretical examination scores as the only evaluation standard, and the evaluation purpose, content, and methods are more comprehensive and rich^[8]. However, compared with the requirements of characteristic development and connotative reform of higher vocational colleges, the existing evaluation system still lacks dynamism, scientificity, and comprehensiveness, and the current evaluation is still influenced by the “final student evaluation,” and cannot fully reflect the characteristics of “value-added evaluation” and “process evaluation” in practical operation and function play. Sorting out the current status of the operating mechanism of student evaluation in higher vocational colleges, the following practical problems are discovered.

2.1. Single evaluation goal and standard

When evaluating students, vocational colleges generally use the same set of comprehensive quality assessment standards for the entire school students, and there is commonality in the setting of evaluation objectives. They use uniform reference standards to evaluate the learning and development of students with different growth backgrounds and personality characteristics. This evaluation method cannot fully meet the requirements of “evaluation based on materials.” Nor does it take into account the unquantifiable factors in the growth of students, such as students’ social practice skills, career development skills, etc., ignoring the individual differences of students as unique life subjects.

2.2. Single evaluation concept and method

The student evaluation in higher vocational colleges is based on the static “final evaluation,” that is, at the end of a semester, students are assessed and evaluated in the form of tests. This evaluation method emphasizes the results and focuses on students’ investigation of theoretical knowledge learning, and fails to reflect the evaluation of the teaching process and students’ value-added evaluation. It is also difficult to truly reflect on the progress of students in vocational skills and professional literacy, ignoring that student learning is a dynamic development process and that student growth and development is a process of continuous iteration and improvement.

2.3. Single evaluation subject and dimension

Although the student evaluation system of higher vocational colleges has formed a set of evaluation index systems that can reflect the characteristics of process evaluation in its development, the evaluation only involves teachers, and students and parents understand the phased learning results through grades and scores, focusing on the evaluation of students’ courses and academic completion related to intelligence factors. In essence, the evaluation content of a single subject and dimension does not fully consider the evaluation of non-intellectual factors such as students’ ideological and moral accomplishment and physical quality in addition to the influence of intelligence factors, nor can it objectively and comprehensively reflect the degree of students’ development, especially difficult to reflect the characteristics of students’ learning situation in higher vocational colleges.

3. The connotation of student developmental evaluation based on achievement certification

Developmental evaluation refers to the evaluation with the fundamental goal of promoting students’ development. It advocates further deepening the process of students’ development, timely understanding the problems encountered by students, the efforts and progress they have made, and then effectively guiding students’ sustainable development^[9]. Different from the traditional final evaluation, developmental evaluation no longer only aims at quantifying students’ learning results, but also aims at tapping students’ creative potential, emphasizing evaluation of students’ real ability after the learning process, and promoting students’ personality development^[10].

Learning achievement certification is based on a clearly defined standard system as a reference, that is, the qualification framework. It is a tool system for the recognition and classification of various qualifications by using the evaluation criteria of learning outcomes, covering all types of learning outcomes and processes. Modern society needs diverse talents. In addition to mastering and understanding knowledge, students have many important qualities and potentials worthy of our attention, especially the ability to use existing knowledge to analyze and solve problems and make innovations and discoveries in practice^[11]. Under the background of the new era, the introduction of the developmental evaluation based on the achievement certification to build the evaluation system of higher vocational students is helpful to solve the realistic dilemma of poor evaluation indicators, one-sided evaluation process, and single evaluation subject in the current student evaluation system of higher vocational colleges.

Looking back on the development history of the educational evaluation system and developmental evaluation, it can be seen that developmental evaluation is gradually developed on the basis of multiple intelligence, all-round development, constructivism, cooperative learning, educational evaluation, and other theories^[12]. As for developmental student evaluation^[12], different scholars have put forward various opinions and viewpoints based on their own research background. Based on these viewpoints, this paper proposes a student

development evaluation system based on achievement certification. Based on the framework system of the achievement certification system and the concept of developmental evaluation, dynamic, developmental, and process-based evaluation is used as a method to conduct comprehensive process evaluation on students' quality development, personal growth and development, and various learning outcomes, so as to promote students' personalized development.

4. The construction of a student developmental evaluation index system based on achievement certification

In combination with the actual education and teaching of higher vocational colleges in China, with reference to the construction of the achievement certification system and the standards of relevant vocational colleges at home and abroad, according to the training objectives and requirements, and comprehensively considering the personnel training mode and teaching plan, a reasonable, scientific, perfect, and operable developmental evaluation index system should be established. The index system is divided into six first-level indicators and 20 second-level indicators. The specific first-level and second-level evaluation indicators, evaluation subjects, and evaluation weights are shown in **Table 1**.

Table 1. The developmental evaluation index system of higher vocational college students

First-level indicators	Second-level indicators	Evaluation body	Evaluation weight
Political character literacy	Caucus activities	Counselors, individuals, ideological, and political teachers	0.15
	Patriotic education	Counselors, individuals, ideological, and political teachers	
	Professional ethics	Evaluation of practice unit, evaluation of practice instructors, and personal evaluation	
Professional skills and literacy	Professional learning	Counselors, individuals, faculty advisors	0.2
	Skill certificates	Counselors, individuals, instructors	
	Competition wins	Counselors, individual, faculty advisors	
Physical and mental health literacy	Physical activity	Counselors, individuals, physical education teachers	0.15
	Exercise outside of class	Counselors, parents, individuals, physical education teachers	
	Mental health	Counselors, parents, individuals, psychology teachers	
Cultural and artistic literacy	Aesthetic education learning	Counselors, individuals, aesthetic education teachers	0.15
	Literary and artistic activities	Counselors, individuals, aesthetic education teachers	
Practicing public literacy	Labor literacy	Counselors, parents, individuals	0.15
	Social practice	Counselors, individuals, instructors	
	Pro bono services	Counselors, individuals, faculty advisors	
Professional science and innovation literacy	Qualification certificate	Counselors, individuals, full-time teachers	0.2
	Scientific research activities	Counselors, individuals, full-time teachers	
	Scientific research achievements	Counselors, individuals, full-time teachers	
	Bi-creative programs	Counselors, individuals, instructors, bi-creative mentors	
	Capacity development	Counselors, individuals, full-time teachers	

5. Guarantee mechanism of developmental evaluation of higher vocational students based on achievement certification

5.1. Building an evaluation guarantee system

Establishing and improving the guarantee system of student developmental evaluation system is the basic approach and important guarantee for the implementation of student developmental evaluation. A leading group of evaluation work with school leaders as the main members is set up to conduct overall control over the research and promotion of the student evaluation system. The three-level linkage evaluation mechanism of “school-department-teaching and research office” has been established, the evaluation organizational structure and the evaluation process management system have been established and improved, the supervision and work responsibilities of each level in the framework have been clarified, the evaluation work system has been formed, and the construction of the student evaluation system has been promoted. All functional departments and teaching units, in combination with their own functions, have close communication and cooperation to strengthen the implementation of the evaluation system, and provide support and guarantee for the construction and smooth implementation of the student evaluation system.

5.2. Building a dynamic process evaluation of the results

According to the talent training program, student developmental orientation, and curriculum standards, and combined with the characteristics of each key link and component element of the learning process, the closed-loop management mechanism of “operation-evaluation-feedback-improvement-re-operation-re-evaluation-feedback” with multiple indicators, multi-directions, hierarchical, and sub-characteristics is established. The evaluation subject tracks and evaluates the students, establishes a scientific and reasonable evaluation feedback mechanism, records the problems in students’ learning and evaluation, and then provides feedback to the evaluation subject in a timely manner, so as to realize the dynamic process of educational evaluation and comprehensively improve the quality of independent talent training.

5.3. Building a digital intelligent platform system

With the continuous development of technology and the digital transformation of the education industry, it is imperative to make full use of big data, artificial intelligence, and other information means, establish a digital intelligent information platform service system, and implement a regular collection of all types of education key data at all levels^[13]. On the one hand, online certification and storage of students’ various achievements can be achieved including objective records of students from enrollment to graduation of the whole cycle growth process, strengthening the process evaluation. On the other hand, it can conduct data comparative analysis through the platform information, use the advantages of big data, implement value-added evaluation combining horizontal comparison and vertical development, and analyze the advantages and learning characteristics of students according to the statistical data of the results during the three years of students’ studies, draw the growth curve and advantage radar map of students, and formulate personalized growth guidelines for them.

6. Summary

The construction of the developmental evaluation system of higher vocational students based on the achievement certification aims to explore the improvement of the result evaluation, the strengthening of the process evaluation, the exploration of value-added evaluation, and the improvement of the comprehensive evaluation^[2], lead the students to take the initiative to develop with the diversity of standards, the timeliness of implementation, and the individuation of results, and pay more attention to the incentive function of educational

evaluation^[14]. Its value orientation points to lifelong learning, promotes academic iteration, and improves core literacy^[15], solving the current problems of evaluation content, methods, and criteria faced by students. It not only pays attention to students' learning ability, but also emphasizes the cultivation of students' quality and the improvement of innovative spirit and practical skills, and cultivates students' lifelong learning theory and social adaptation ability. It can enable the high-quality development of higher vocational colleges.

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