

Evaluation of Education Quality in Higher Vocational Colleges: A 2016-2021 Research Review

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Abstract

Vocational education is an integral part of the Chinese education system. Education quality is the lifeline of vocational education, and evaluations are essential to the improvement of education quality. In recent years, studies on the evaluation of education quality in higher vocational colleges have increasingly become the focus of all sectors of society. Research pertaining to this issue not only promotes the deepening of the vocational education evaluation theory, but also serves as a guidance for practical evaluation, therefore improves the education quality in higher vocational colleges. This paper retrieved, collated and analyzed studies conducted by Chinese scholars from 2016-2021 on the evaluation of education quality in higher vocational colleges in China, and summarized their viewpoints from various aspects such as defining concepts, evaluating their subject, content, criteria and methods. This paper aims to provide reference and guidance for further research in this field.

Keywords

Higher vocational colleges; Education quality; Quality evaluation; Review.

1. Introduction

The National Vocational Education Reform Implementation Plan makes it clear that we must establish a system for education quality evaluation in vocational education, and gradually "improve the quality evaluation mechanisms involving the government, industries, enterprises, and vocational colleges." In 2020, the CPC Central Committee printed and distributed the PRC's first document on reforming the education evaluation system—The Overall Plan for Deepening the Reform of Our Education Quality Evaluation System in the New Era, in which an overall action plan for education quality evaluation reform was proposed. But as of now, education quality evaluation in higher vocational colleges is plagued by numerous problems, including the lack of variety of subjects, partiality towards certain targets of evaluation, lack of innovation in evaluation methods, and non-transparency of the evaluation process, which all hinder it from being an effective guiding policy. Therefore, establishing a rational and reasonable education quality evaluation system for higher vocational education has become a common goal of all sectors of society, garnered widespread attention in academia, and become a hot topic in recent years.

This paper uses CNKI, China Academic Journal Network Publishing Database, as data source, employs keyword search as the method of search, and analyzes the literature published from 2016-2021. Specifically, we retrieved 3259 matching papers with keyword "education quality in higher vocational colleges", and 275 with keywords "education quality evaluation in higher education" and "higher education * quality evaluation". Education quality in higher vocational colleges has always been a focus in academia, but research on it has been slightly insufficient, and has great room for further exploration and future research. Evaluation should be

performed in several aspects, including the subjects, targets and criteria of evaluation. In order to conduct an all-round collation and analysis of the studies related to education quality evaluation in higher vocational education, this paper will review the materials from four different respects: content definition, subjects of evaluation, targets of evaluation (the content and criteria of evaluation), and methods of evaluation.

2. Definition of Relevant Concepts

2.1. Vocational Education

In academia, discussions on the characteristics of vocational education are based mainly on the differences between higher vocational education and general education. Renowned Chinese educationalist Huang Yanpei proposed that the essence of vocational education lies in its social utility, and that vocational education must serve to bridge the gap between education and social needs. He holds that "vocational education is education for civilians, education that serves society, and something devised to improve the livelihoods of civilians." [1]. Wang Guoqing proposed that higher vocational education is a combination of vocational education and higher education, a combination of schools and enterprises, and a combination of social practice and professional study, characterized by its ability to span across multiple disciplines, practicality, and openness.

2.2. Education Quality

Our country's Dictionary of Education defines education quality as the effectiveness and standard of teaching. Scholar Joseph Milan, however, holds that education quality refers to the degree to which educatees are able to utilize their talents to serve society. From the different perspectives of the demand-side and the supply-side, some scholars have proposed that the developing high quality service areas should be the focus of quality higher vocational education, claiming that education quality should mainly be reflected in terms of the degree to which it can help satisfy social needs, while others, focusing on the supply-side (schools), believe that education quality is reflected by the competence of talents cultivated by schools.

2.3. Quality of Higher Vocational Education

Complex factors are at play when it comes of the quality of higher vocational education. Scholars commonly hold that it is a multifaceted concept which takes into account systematicness, diversity, and developmental potential. Zhou Xi Xia proposed that the quality of higher vocational education is "the quality of all activities related to the training of talent, including both the process and the results" [2]. In terms of the relationship between education quality and teaching quality, Li Qiong believes that the teaching quality of higher vocational education refers to the degree to which the objective of cultivating educatees is achieved through teaching activities.

2.4. Quality Evaluation of Higher Vocational Education

Education quality evaluation is the evaluation of how much an educational objective has been achieved. Wei Na proposed that the quality evaluation of higher education is the process of gathering relevant information, analyzing it rationally, making a value judgement of the education quality in higher vocational education, and putting forward a plan for improvement, so as to improve teaching quality. Specifically, the viewpoints in academia can be categorized into three groups: first is the value judgement of educational activities, which also requires that the development of each individual is the core concern. Yang Guilin proposed that the essence of education quality evaluation is the value judgement of higher vocational education, which aims to comprehensively reflect "the degree to which higher vocational education suits social needs". [3] Liu Manping also holds that education quality evaluation is a value judgement of

education standards. Second is the degree to which an educational objective is achieved, or social needs are satisfied. Scholars who hold this view generally believe that the quality of higher education is reflected by the degree to which colleges satisfy social and individual developmental needs. Tyler R. W. defined the essence of education evaluation as "the process of determining the degree to which the curriculum and syllabus help to achieve the educational objective" [4]. In the third group, scholars classify and define education quality evaluation at macro, middle and micro levels. At the macro level, education quality is evaluated at the national, regional or industry level, and refers mainly to the coordination between the outcome, structure and effectiveness of a given system. At the middle level, it is evaluated from the perspective of schools, based on the standard and effectiveness of teaching. At the micro level, it is evaluated based on the effect of education on every educatee.

3. Subjects of Higher Vocational Education Quality Evaluation

The subjects of evaluation answer the question of who evaluates. Numerous studies and discussions on this have been conducted in academia.

3.1. Establishing Diversified Subjects of Evaluation

Having diversified subjects only ensures the greatest degree of fairness in evaluation, but also effectively expresses the demands of interest groups. Therefore, a general consensus has been reached in academia that we should establish diversified subjects, involving the government, enterprises, industries, schools, etc. Zhao Tong and others proposed the idea of establishing diversified subjects which include "industries, enterprises, the government, the society, students, parents and third-party evaluation institutions." [5]. Li Yongjian and others also proposed, from the perspective of interest groups, that we should establish a system of co-governance with diversified subjects, involving all interest groups. Specifically, they include the following four groups: the government, students, teachers, and the society. Wan Lei emphasized that we should build a diversified "Five in One" subject group involving all parties, including teachers on campus, masters off campus, apprentices, enterprises, and third-party evaluation institutions. Third-party evaluation institutions should include "education and research departments, industry associations, and professional appraisal departments"[6].

3.2. Attaching Importance to the Participation of Third-Party Subjects. in Order to Put Third-Party Evaluation Institutions to Good Use

Yang Guilin clarified in particular the relationship between the government and third-party evaluation institutions, proposing that the government's role should be that of a "helmsman", not an "oarsman", and that more power should be given to the market, higher vocational colleges, and the society. And taking into consideration the situation of our country, third-party institutions should adopt a model of "relying on the government and depending on the experts" at the early stage of their operation. [7] Fan Yu, however, stresses the importance of enterprise participation, proposing that industries and enterprises must show greater support for vocational education, and take part in the setting of industry standards and planning of practical and specialized courses. [8]

3.3. Stressing the Importance of College Self-Evaluation

At the national level, evaluation of colleges requires a relatively long period of time, causing delay. Therefore, quite a number of scholars especially stress the importance of college self-evaluation. Liu Renxiong classifies the subjects of evaluation into two parts: "on campus" and "off campus". On-campus subjects include "the chief inspector, supervisor, management institution, on-campus part-time job supervisor, and secondary faculty supervisor". Off-campus subjects, on the other hand, are composed of "the government, parents, employers, and other

interest groups". [9] Chang Jiajia holds that colleges should strengthen their ability to self-evaluate, increase the weight of their college's self-evaluation, and adopt a transparent and open model of self-evaluation based on facts and data.

4. Content and Criteria of Higher Vocational Education Quality Evaluation

The content of evaluation refers to the target of evaluation. The content of evaluation should be selected with the aim of improving education quality, while taking into account key factors that influence education quality. There should be a clear sense of direction and priority, while allowing for adjustments, so as to meet the practical needs for the development of higher vocational education. A system of evaluation criteria reflects the systemization of content evaluation, and serves as a guidance for education quality evaluation. Researchers have held widespread discussions on how to define the content and criteria of evaluation, and it comes down to mainly three aspects:

4.1. Satisfying the Demand Party, and the Perspective of Interest Groups

Zhou Xiaxia stresses that a high quality higher vocational education should satisfy three needs: the needs of the job market, the needs of relevant subjects, and the needs of the educatees for their continuous development. And since the needs of those three parties are constantly changing, the quality of specialization training should vary, and therefore, there should be no fixed evaluation criteria for monitoring and assessing education quality. Li Jianyong and others proposed that "people's satisfaction" is the touchstone for teaching quality in higher vocational education [10], and worked out 21 second-level indicators under the four first-level indicators: government satisfaction, teachers' satisfaction, students' satisfaction, and social satisfaction. Lei Di holds that we should regard the development of students as our core concern and goal, establish a set of criteria and a system for higher vocational education evaluation, and include as part of the evaluation whether higher vocational education satisfies socioeconomic developmental needs, individual developmental needs, and the needs for a high quality development of vocational education. [11] Liu Manping advocates establishing a diversified set of evaluation criteria with putting people first at its core, and including students' "vocational development and employment quality" as part of the evaluation indicators system. [12] Sun Chengmengxue proposed that students are the core group when it comes to ensuring quality, and that we should bear in mind the idea of "putting students at the core" at every stage, from setting objectives, employing teaching methods, to evaluating quality.

Based on the interest group theory, Liu Renxiong holds that teaching is the most important function of higher vocational education, but the evaluation indicators system should include not only teaching, the most basic component, but also the demands of the government, employers, and other interest groups, so as to form a complete and organic system. Based on the interest group and customer satisfaction theories, Wang Guoqing proposed that student satisfaction should be key to the quality evaluation of higher vocational education, and that the service standard of higher vocational colleges should be in line with students' expectations of higher vocational education.

4.2. Framework and Content of the Evaluation Indicators System

Evaluation indicators directly determine the content of evaluation, and have an influence on how effect the evaluation is. Zhao Tong analyzed this issue using the "Analytic Hierarchy Process—Extension Model" and proposed that specialty construction and the reasonability of the full-time teachers structure have a particularly important influence on education quality. Chen Jie put forward a total of 26 indicators under the 5 categories: school environment, social services, employment quality, training bases, and the faculty. Lu Desheng proposed that we should establish school-based quality evaluation systems for higher vocational education,

including the five different aspects: specialty orientation, course construction, faculty recruitment, training process, and student development. [13] Wan Weiping holds that the purpose of education and the training objective of schools lie at the core of evaluation, and put forward eight frameworks for content evaluation under three categories, including resource allocation at the macro level, standard and effectiveness of teaching at the middle level, and training quality of educatees at the micro level. Chen Yuanbo proposed that the evaluation indicators system for higher vocational education should be implemented at every step, from before class, in class, to after class. Nie Jing proposed that the scope of education quality evaluation should not only include the teaching quality of students and teachers, but also the quality of specialization, course arrangement, facilities such as training bases, the faculty. Based on the Kirkpatrick Model, some researchers proposed that we should establish whole-process evaluation systems that include the four levels of criteria (reaction, learning, behavior, and results), and cover every stage of the modern apprenticeship education.

4.3. Establishing A Dynamic Evaluation Indicators System

Higher vocational education is an important link in our socioeconomic development. As we become more socioeconomically developed, we should abandon our rigid and fixed mindset, and instead think about the evaluation of higher vocational education with a dynamic, growth mindset. In terms of how that relates to establishing an evaluation indicators system, Chang Jijia proposed that we should establish a dynamic indicators system based on vocational skills, and said system should be vocation and skill-oriented, as well as adjusted to fulfill the individual needs of every school. Chang also proposed the original idea that we should take gradual steps towards exploring how to conduct evaluations of evaluations (“meta-evaluation”), mainly on higher vocational education evaluation indicators systems. Tan Chunhua holds that, with fewer student enrolling in vocational schools due to the enrollment expansion in higher education, students of higher vocational colleges are come from more diverse background, and are more structurally diversified, and therefore evaluation indicators should be adjusted accordingly, and top-level design and planning should be reconsidered. [14]

Moreover, some scholars advocate, on the basis of the five dimensions put forward in the higher vocational education quality annual report, and taking into consideration the relationship between higher vocational education and its ability to serve society, that higher vocational education quality evaluation should include three dimensions, students’ development, education and teaching, and service and contribution, where service and contribution refers mainly to its ability to serve society.

5. Methods for Evaluating Higher Vocational Education Quality

Evaluation methods are the strategies and procedures used in practice for evaluating higher vocational education quality. With regards to how higher vocational education quality evaluation should be conducted, the main viewpoints in academia are as follows.

5.1. Emphasizing Data Collection and Use

Data collection is the foundation and prerequisite of higher vocational education quality evaluation. On this issue, Liu Renxiong attempted to apply the “5W1H” analysis method to the procedures of higher vocational education evaluation. Based on this model, he divided education quality evaluation into five procedures: modeling, determining interest groups, establishing the MIS system, data collection, and multidimensional evaluation. He also proposed that collected data should be shared with the school and integrated with its existing digitalized data. Liu Xianhua holds that with the prevalence of big data, data has grown in volume and complexity, and so we should work out evaluation methods that are smarter and based on models, in order to make data mining more efficient and data analysis more thorough.

Moreover, she proposed that personal holographic archives should be implemented as part of the quality evaluation model, so as to make comprehensive records of students, and realize data tracking and sharing. Nie Jing also stressed the importance of data tools, and advocates relying on big data, so as to create a new normal in evaluation in which “input-process-output” runs through every stage of education.

5.2. Emphasizing Data Collection and Use

Higher vocational education is a broad and general concept, and therefore we should combine quantitative and qualitative analyses when evaluating its education quality, flexibly adopting observation, inspection, and individual interviews as evaluation methods. Specifically, Chen Jie advocated that education quality evaluation be carried out through the combination of quantitative and qualitative analyses, and constructed an education quality evaluation model using the FCE (Fuzzy Comprehensive Evaluation) method.

5.3. Value-Added Evaluation

The Overall Plan for Deepening the Reform of Our Education Quality Evaluation System in the New Era clearly puts forward that we must actively explore value-added evaluation. As an important method of higher vocational education quality evaluation, value-added evaluation evaluates the quality and efficiency of education by comparing indicators including the degree to which education objectives are reached, and the degree of educatees' growth. The main methods employed are TVAAS (Tennessee Value Added Assessment System) and the Portfolios evaluation model. Although the value-added evaluation method comes with numerous advantages, Sun Chengmengxue proposed that it is difficult to implement due to the long time required for the effect of education to manifest, as well as the complexity and high costs of implementation.

6. Summary and Future Prospects

Having gone through the first and second rounds of teaching evaluation and other gradual developments to date, we have established a relatively complete education evaluation system in our country. However, through an analysis of the results of studies related to higher vocational education quality evaluation conducted within the past five years, we can observe that there still exist a number of problems. For example, the lack of fact-based analytic studies, the relatively low number of studies that incorporate the comprehensive quality and conduct of higher vocational colleges as part of their evaluation system, and the homogenization and broadness of research content. In the future, studies can be improved in terms of originality, comprehensiveness, and narrowing down of research topics.

6.1. Innovation in Research Perspective—More Interdisciplinary Studies

We should endeavor to carry out studies on education quality evaluation from multiple perspectives, such as management, economics, and sociology, so as to break through the limitation of only discussing education from the perspective of education. For example, from a management perspective, we should pursue innovation and diversification of subjects in evaluation mechanisms. From an economics perspective, we should conduct meta-evaluation research including research on benefit evaluation and improvement of efficiency. From a sociological perspective, we should carry out research on the social benefit and social participation of higher vocational education quality evaluation.

6.2. Innovation in Research Methods—Conducting Research Based on Practical Findings

Currently, most studies on higher vocational education quality evaluation are theoretical and macroscopic, and there is a lack of quantitative and fact-based research. In future studies, we

should include the fact-based findings and case studies of third-party evaluation institutions, schools, and students. At the same time, a comparative analysis of schools in different regions, of different types, and on different levels can serve as a reference for higher vocational education quality evaluation.

6.3. Innovation in Research Topics—Narrowing Topics Down to Third-Party Evaluation etc.

There is considerable research on the macroscopic problems of higher vocational education quality evaluation, and their solutions at the macro level, but not much research on the narrower topics at the micro level. In the future, we can carry out research in terms of how to solve problems third-party subjects face in evaluation, how to combine quantitative and qualitative analyses in the evaluation indicators system, and how to construct diversified subjects so as to achieve effective integration.

Higher vocational education evaluation is comprehensive, developmental, and procedural. Only by establishing a rational and reasonable system for education quality evaluation, can we objectively and comprehensively measure, improve the quality of higher vocational education, and promote the connotative development of higher vocational education. By evaluating the evaluation of higher vocational education, we can also better examine the effectiveness of our evaluation process, and take a comprehensive, multi-perspective and multi-dimensional view to improve the quality of higher vocational education. Therefore, a research of higher vocational education quality evaluation helps us to adopt a more reasonable approach towards education quality evaluation, and the result of quality evaluation in turn "forces" the improvement of education quality.

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