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Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational college students in Guangdong

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ABSTRACT

The research objectives were: (1) to study the current situation of the comprehensive quality evaluation system for higher vocational college students, (2) to develop the strategies for improving the comprehensive quality evaluation system for higher vocational college students, (3) to evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students. The sample group was 382 students, 5 teachers, and 5 administrators from five vocational colleges in North Guangdong. Qualitative and quantitative methods such as questionnaires and semi-structured interviews were employed to thoroughly investigate the comprehensive quality evaluation system for higher vocational college students in Guangdong. The findings revealed that (1) the current situation of the comprehensive quality evaluation system for higher vocational colleges students were subject (personnel), contents, method, and results feedback and application, (2) the develop the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students were consisted of 4 aspects, in a total of 20 measures, and (3) the feasibility evaluation was at a high level.

Key words: Evaluation Subject, Evaluation Content, Evaluation Method, Evaluation Results Feedback and Application

INTRODUCTION

Higher vocational education is an important part of higher education. Vocational colleges shoulder the important mission of cultivating high-skilled talents on the country's front lines of production, construction, management, and service. The main base for cultivating high-quality talents in various industries is colleges and universities. How to evaluate the comprehensive quality of college students comprehensively, objectively, and scientifically has become a very real problem faced by colleges and universities in the process of comprehensively promoting quality education. As an integral part of higher education institutions, vocational colleges face this serious problem. Wang (2020) believes that the evaluation of students' comprehensive quality is not only an important topic of concern in the country's current educational evaluation theory but also a practical issue faced by improving talent training programs. The effective implementation of students' comprehensive quality evaluation can provide a reliable starting point for schools to improve the quality of talent training. It is also an effective means to exert evaluation and education functions and achieve educational goals.

The National Education Conference proposed that cultivating socialist builders and successors should focus on strengthening ideals and beliefs, nurturing the spirit of patriotism, strengthening moral cultivation, increasing knowledge and insight, cultivating the spirit of struggle, and improving overall quality. One key point is guiding students in the development of comprehensive skills and the cultivation of innovative thinking; efforts should be made to improve the overall quality of education. The importance of cultivating students' comprehensive quality and ability was highlighted.

The overarching scheme to strengthen the reform of educational assessment in the new century. The plan clearly states to adhere to the principle of putting morality first, focusing on ability and comprehensive development, insisting on facing everyone, teaching students following their aptitude, integrating knowledge and practice, resolutely changing the practice of labelling students with scores, and innovating the process evaluation method of moral, intellectual, physical, artistic, and labour. Improve the comprehensive quality evaluation system, effectively guide students to strengthen their ideals and beliefs, cultivate patriotism, strengthen moral cultivation, increase knowledge and insight, nurture the spirit of struggle, and enhance overall quality. In 2021, Heyuan Polytechnic became a pilot school for the new-era education evaluation reform in Guangdong Province. In 2024, Guangdong Province will organize experts to inspect the comprehensive quality evaluation system of Heyuan

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Polytechnic. As the person in charge of student comprehensive quality evaluation, the researcher can thoroughly combine work with work to carry out academic research.

Research Objectives

Based on the above arguments, the following research objectives are proposed:

1. To study the current situation of the comprehensive quality evaluation system for higher vocational college students.
2. To develop strategies for improving the comprehensive quality evaluation system for higher vocational college students.
3. To evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational college students.

To address the preceding objectives, the following research questions are posed:

1. What is the current situation of the comprehensive quality evaluation system for higher vocational college students?
2. How do we develop strategies to improve the comprehensive quality evaluation system for students at higher vocational colleges?
3. What are the feasibility levels of the strategies to improve the comprehensive quality evaluation system for higher vocational college students?

LITERATURE REVIEW

More and more attention has been paid to the study of the comprehensive quality evaluation system for higher vocational college students, which is regarded as the critical factor in promoting students' all-round development. At present, the research on the comprehensive quality evaluation system for higher vocational college students is mainly concentrated on the following aspects:

Evaluation Subject (Person)

The first subject of evaluation is the student. Student self-evaluation can meet students' individualized and specific psychological needs during their growth period, according to Zhao (2015). Wang (2013) considers college students to be mature physically and psychologically and to have their independent ideas. Therefore, as evaluation objects, college students should not be passively evaluated but should participate in the entire evaluation process as one of the subjects. Guided evaluation takes students as the main body of evaluation and allows students to participate in the evaluation process as a whole (Yang, 2014). As the main body of the school, students need to have a more prominent dominant position in evaluation; peer evaluation reflects the advantages of peers; that is, peers are closest in ideas and most straightforward to communicate with (Li, 2019). The college students' self-evaluation enables them to understand their situation, objectively evaluate their self-performance, effectively reflect on their behaviour, and plan their development path. McMahon et al. (2004) mentioned that it emphasizes the diversity of evaluation subjects and gives full play to students' dominant positions. It includes teachers' evaluation and pays more attention to students' self-evaluation, emphasizing the students' dominant position.

Evaluation Contents

Comprehensive quality evaluation includes many aspects; relevant experts believe it should consist of five. Among them, key indicators such as college students' moral development level, personal and average academic development level, physical and mental development, speciality development and guidance, and academic burden status should become the evaluation content. It aims to comprehensively examine the latest development status of students in many aspects. Pay attention to students' learning and life (Yao, 2018). Wei (2016) mentioned that the evaluation content should include the following elements: ideological and moral quality, scientific and cultural quality, ability quality, humanistic quality, and physical and mental quality. Li (2018) believes that the comprehensive quality of college students mainly includes ideological and moral quality, professional quality, physical and mental health quality, humanistic quality, ability quality, etc.

Evaluation Method

Scholars have different views on comprehensive quality evaluation methods and have produced many evaluation methods, including the following: The analytic hierarchy process is a systematic and hierarchical analysis method combining qualitative and quantitative methods. This method quantifies the decision-makers experience and is particularly suitable for situations where the target structure is complex, and data is lacking. It is a simple, flexible, and practical multi-criteria decision-making method. Since the analytic hierarchy process was proposed, it has been applied to decision-making problems in all walks of life. The researcher found that the comprehensive quality evaluation system that needs to be constructed in this study involves multiple quality items from students and has different indicators and evaluation values according to various aspects of varying quality performances. The analytic hierarchy process reflects this kind of hierarchical soil. It has the characteristics of a progressive system.

Evaluation Results, Feedback, and Application

We need to build a reasonable evaluation feedback mechanism for evaluation results feedback. Vocational colleges can also actively explore and develop software operating platforms related to students' comprehensive quality evaluation during the evaluation process to obtain feedback and evaluation results for the first time (Chen, 2022). The evaluation results can be used for both internal and external purposes. First, schools can use the results of student evaluation as an essential basis for testing their own educational level and student management; second, teachers can use the evaluation results as a critical reference to check the daily

teaching and student management and guide the healthy growth of students; third, students can use the evaluation results to self-position, identify the gap, and improve the problem in time; and fourth, social employers can also have a more three-dimensional and comprehensive understanding of graduates' study and life in school through the evaluation results, to quickly and accurately find suitable graduates in the recruitment process (Wang, 2020).

From this literature, the research on students' comprehensive quality evaluation systems is relatively mature, but there are shortcomings, mainly reflected in the fact that the research needs to be more thorough and systematic and effectively solve the problems in evaluation methods and content. It is vital to study a comprehensive quality evaluation system.

METHODS

Population

The research population includes 70,800 people related to the Comprehensive Quality Evaluation System Strategies for Higher Vocational College Students in the North of Guangdong, classified as 62,300 students, 2,700 teachers, and 580 administrators.

Sample group

According to Krejcie and Morgan's (1970) sample table, this study's sample consists of 382 students from five higher vocational colleges in the north of Guangdong: Heyuan Polytechnic, Guangdong Meizhou Polytechnic, Qingyuan Polytechnic, Guangdong Songshan Polytechnic, and Luoding Polytechnic.

Purposive sampling selected five teachers and five administrators from five higher vocational colleges as interview subjects to evaluate the comprehensive quality evaluation system strategy for higher vocational college students north of Guangdong. The five experts are all from higher vocational colleges in Guangdong.

The semi-structured interviewees

In this study, five teachers and five administrators were interviewed. The following inclusion criteria were followed in selecting teachers: Respondents must be (1) an associate professor or above and (2) working in school for more than ten years. The administrators were in charge of academic affairs and student affairs. The following inclusion criteria were followed in the selection of administrators: Respondents must: (1) be an associate professor or above; (2) have worked in school for more than 15 years, and (3) be familiar with the school's development planning, daily teaching, student management, and other specific situations.

In addition, five experts were invited to evaluate the comprehensive quality evaluation system strategy for higher vocational college students in the north of Guangdong. They were all from higher vocational colleges in Guangdong. According to our inclusion criteria, the teachers had to (1) be engaged in vocational education for more than 15 years, (2) have rich experience in education management, and 3) be associate professors or above.

Questionnaire participants

The research population includes 70,800 people related to the Comprehensive Quality Evaluation System Strategies for Higher Vocational College Students in the North of Guangdong, classified as 62,300 students, 2,700 teachers, and 580 administrators.

According to Krejcie and Morgan's (1970) sample table, this study's sample consists of 382 students from five higher vocational colleges in the north of Guangdong: Heyuan Polytechnic, Guangdong Meizhou Polytechnic, Qingyuan Polytechnic, Guangdong Songshan Polytechnic, and Luoding Polytechnic.

Research Instruments

Questionnaire

This questionnaire was designed for higher vocational college students to review. There are 21 questions and 20 sub-questions in total. The questionnaire, developed based on the current situation of comprehensive quality evaluation of students in higher vocational colleges, is divided into four aspects: 1) evaluation subject (personnel), 2) evaluation method, 3) evaluation content, and 4) feedback and application of evaluation results.

Semi-structured interview

This study conducted semi-structured interviews with five teachers and five administrators. The main content of the interview centred on the following four themes: 1) opinions on the current situation of students' comprehensive quality evaluation and suggestions for the subjects (personnel) involved in the evaluation; 2) opinions on the current status of evaluation content and suggestions for improving the evaluation content; 3) opinions on the current status of evaluation methods and suggestions for improving evaluation methods; and 4) opinions on the current situation of evaluation result feedback application and proposing ways to improve evaluation result feedback and application. A total of 5 teachers and five administrators were interviewed. The interview results, after processing, serve as the basis for developing appropriate strategies.

Procedure

Before data collection, approval was obtained from 382 students from 5 vocational colleges, five teachers, and five administrators in the field. All participants were explicitly informed and voluntarily agreed to participate in the survey. The research process proceeded as follows:

Clarification of research objectives

A literature review was conducted on developing comprehensive quality evaluation system strategies for students at

higher vocational colleges, with identified problems guiding the establishment of research objectives.

Validation of research tools

The "Questionnaire about Comprehensive Quality Evaluation for Higher Vocational College Students" and "Interview Form about Improving the Comprehensive Quality Evaluation System for Higher Vocational College Students" were developed using the IOC analysis method, followed by testing their reliability and validity.

Semi-structured interviews and Questionnaires

The 20 teachers and 10 administrators were interviewed regarding factors influencing and suggestions for improving the comprehensive evaluation system of vocational college students, and five experts were invited to score and evaluate the feasibility of 20 strategies. 4) Data collection. Interview transcripts and questionnaire responses were collected, categorized, and organized, and a database was established. Upon verification, all questionnaire data proved valid.

Data processing and analysis

The collected data underwent processing and analysis using SPSS 27.0 statistical software.

Data Analysis

The data analysis in this study involves analyzing the data using the following methods:

Descriptive statistics

Frequency and percentage analysis of the personal information of the respondents, including their gender, grade, and subject classification was analyzed using these methods. In addition, the current situation and influencing factors of a comprehensive quality evaluation system for higher vocational college students were analyzed using mean and standard deviation. Mean and standard deviation analysis was used to evaluate the feasibility of strategies for improving the comprehensive quality evaluation system for higher vocational college students.

Content analysis

Content analysis was used for analyzing the data elicited from the structured interviews on strategies for improving the comprehensive quality evaluation system for students at higher vocational colleges. For this purpose, SWOT and PEST analysis were combined to formulate the draft strategy for improving the comprehensive quality evaluation system for students at higher vocational college students.

RESULTS

The results of the study could be presented according to objectives 1-3 and explained in 4 sections as follows:

Demographic Information

The analysis results of respondents' personal information in North Guangdong vocational colleges were classified by gender, grade, and significance. The data was presented in the form of frequency and percentage.

According to the statistical results in Table 1, the distribution of five college respondents of questionnaires. The gender distribution of respondents is as follows: there are 182 male students, accounting for about 47.64% of the total number of students surveyed, and 200 female students, accounting for about 52.36%. The ratio of men to women is equal. The grade distribution of respondents is as follows: 121 freshmen, accounting for 31.68%; 141 sophomores, accounting for 36.91%; and 110 juniors, accounting for 31.41%. The ratio of grades is equal. The primary distribution of respondents is as follows: there are 100 liberal arts students, accounting for 26.18%; 102 science students, accounting for 26.70%; 99 engineering students, accounting for 25.92%; and 81 art students, accounting for 21.2%. The ratio of majors is equal.

Section 2: The analysis result of the questionnaire on the current situation of the comprehensive quality evaluation system for higher vocational college students in Guangdong. I presented the data as the average value and standard deviation.

Through the survey, the researcher gained a deeper understanding of the problems faced by the comprehensive quality evaluation system for higher vocational college students in the north of Guangdong, providing critical data support for further creating strategies for improving the comprehensive quality evaluation system of the students. The specific survey results are as follows:

Table 2 shows that the interviewees' overall evaluation of the comprehensive quality evaluation system for higher vocational college students was high (M=3.96). Among the four sub-dimensions, the highest level was the evaluation method (M=4.04). Next was evaluation results feedback and application (M =4.03), and the lowest level was evaluation subject (personnel) (M = 3.83).

Section 3: The analysis results of the interview contents about the strategies for improving the comprehensive

Table 1. Personal information of respondents (n=382)

	Personal information	Number of People	Percentage (%)
Gender	Male	182	47.64
	Female	200	52.36
	Total	382	100
Grade	Freshman	121	31.68
	Sophomore	141	36.91
	Junior	110	31.41
	Total	382	100
Major	Liberal Arts	100	26.18
	Science	102	26.70
	Engineering	99	25.92
	Art	81	21.2
	Total	382	100

quality evaluation system for higher vocational college students in north Guangdong. I presented the data in the form of frequency.

According to the collation and statistics of the interview materials, Table 3 shows the development strategies and frequency statistics of the comprehensive quality evaluation system for higher vocational college students in Guangdong.

Based on the questionnaires and interviews, this study analyzed the above SWOT – PEST and TOWS methods and proposed a draft strategy to develop a comprehensive quality evaluation system for higher vocational college students. These draft strategies are based on the questionnaire results, and the items with the lowest average cores of each variable are determined. The interview results and relevant literature also supported these suggestions. The draft strategy, which mainly includes four aspects, in a total of 20 measures, the list of strategies is as follows (Table 4).

Section 4: The analysis of the feasibility of implementing strategies for improving the comprehensive quality evaluation system for higher vocational college students in the north of Guangdong. I presented the data as the average value and standard deviation.

In Table 5, the data showed that experts' overall evaluation of the strategies' feasibility is at a high level (M=4.34), indicating that the strategies are highly feasible. Among the four sub-subdimensions, the feasibility evaluation of the evaluation subject (personnel) strategies, the evaluation contents strategies, the evaluation method strategies, and the evaluation results feedback and application strategies is at a high level.

Table 2. Analysis of the current situation of the comprehensive quality evaluation system for higher vocational college students in Guangdong (n=382)

Factors of the comprehensive quality evaluation system for higher vocational college students in Guangdong	*M*	*SD*	Level	Order
1. Evaluation subject (personnel)	3.83	0.82	high	4
2. Evaluation contents	3.95	0.81	high	3
3. Evaluation method	4.04	0.73	high	1
4. Evaluation results in feedback and application	4.03	0.75	high	2
Total	3.96	0.78	high	

Table 3. Strategies and frequency statistics of development strategies

No.	Strategy	Interviewee										*f*
		1	2	3	4	5	6	7	8	9	10	
1	Possess expertise in evaluation	√		√	√			√				4
2	Have experience in evaluation work		√		√				√	√		4
3	strengthen training		√			√	√			√	√	5
4	Diversity of participants	√						√	√			3
5	Students as the main body			√		√		√				3
6	Introducing third-party evaluation agencies			√			√					2
7	In line with student development		√			√	√			√	√	5
8	Strengthen multiple abilities	√				√	√		√			4
9	Clarify standards and systems		√	√				√				3
10	Operable			√					√		√	3
11	Dynamically adjust content		√		√						√	3
12	Adapt to social development needs	√					√			√		3
13	process evaluation	√						√		√		3
14	Result evaluation		√		√				√			3
15	Adopt an intelligent evaluation system		√		√	√					√	4
16	Various evaluation tools		√								√	2
17	Various evaluation methods			√			√					2
18	Timely feedback on results	√	√				√		√		√	5
19	Hold regular feedback meetings				√			√				2
20	Increase tripartite exchanges			√						√		2
21	Provide personalized feedback	√	√							√	√	4
22	Leverage data analytics				√	√			√			3
	Total	7	10	7	7	6	7	6	7	7	8	

DISCUSSION

The research on the strategies for improving the comprehensive quality evaluation system for higher vocational college students in Guangdong. The researcher summarizes the discussion into three parts; details are as follows:

Part 1: The current situation of the comprehensive quality evaluation system for higher vocational college students in Guangdong.

Through a survey of the current situation of the comprehensive quality evaluation system for higher vocational college students in Guangdong, it is found that there are many problems in the evaluation subject (personnel), evaluation contents, evaluation method, and evaluation results feedback and application of higher. By analyzing the average value and standard deviation of the evaluation subject (personnel), evaluation contents, evaluation method, and evaluation results feedback and application, it was found that they were at a high level and required improvement.

In terms of evaluation subjects (personnel), the current status of the evaluation subjects (personnel) of the comprehensive quality evaluation system for students in higher vocational colleges in Guangdong is at a high level and has yet to reach the highest level. The fundamental reason for this situation is that the college needs to consider students' interests fully. In reforming educational evaluation in higher vocational colleges, students must actively participate in student evaluation. Many higher vocational colleges have over 10,000 students and cannot perform evaluation work with students as the main body. This virtually increases the difficulty of student evaluation and increases investment costs. However, higher vocational colleges are available in northern Guangdong. The existing financial resources of the school cannot support the need for student evaluation reform, so the role of students as the subject of evaluation is

Table 4. List of strategies

No.	Aspects of Strategies	Numbers of Measures
1	Strategies for clarifying evaluation subject (personnel)	5
2	Strategies for optimizing evaluation contents	5
3	Strategies for improving evaluation method	5
4	Strategies for optimizing evaluation results feedback and application	5
Total	4	20

Table 5. Average value and standard deviation of expert evaluation of the strategies for improving the comprehensive quality evaluation system for higher vocational college students in guangdong

Assessment checklist	Feasibility		
	M	***SD***	**Level**
1. Strategies for clarifying evaluation subject (personnel)	4.44	0.38	high
1.2 Have experience in evaluation work	4.20	0.00	high
1.3 Strengthen training	4.40	0.55	high
1.4 Diversity of participants	4.00	0.45	high
1.5 Students as the main body	5.00	0.45	highest
2. Strategies for optimizing evaluation contents	4.24	0.4	high
2.1 In line with student development	4.00	0.55	high
2.2 Strengthen multiple abilities	4.40	0.45	high
2.3 Clarify standards and systems	4.20	0.45	high
2.4 Operable	4.60	0.00	highest
2.5 Adapt to social development needs	4.00	0.55	high
3. Strategies for improving evaluation method	4.36	0.38	high
3.1 Process evaluation	4.20	0.45	high
3.2 Result evaluation	4.00	0.45	high
3.3 Adopt intelligent evaluation system	4.40	0.55	high
3.4 Various evaluation tools	4.80	0.45	highest
3.5 Various evaluation methods	4.40	0.00	high
4. Strategies for optimizing evaluation results feedback and application	4.32	0.40	high
4.1 Timely feedback on results	4.40	0.55	high
4.2 Hold regular feedback meetings	4.20	0.45	high
4.3 Increase tripartite exchanges	4.60	0.45	high
4.4 Provide personalized feedback	4.00	0.55	high
4.5 Leverage data analytics	4.40	0.00	high
Total	4.34	0.39	high

easily ignored, which affects the initiative of students to participate in student comprehensive quality evaluation. This is not consistent with the view of Li (2019); Zhao (2015); Wang (2013), and Yang (2014)said that the students as the main body of evaluation and let students participate in the entire evaluation process. It is necessary to emphasize students as the main body and actively participate in reforming students' comprehensive quality evaluation. However, due to students' lack of professional evaluation knowledge and evaluation work experience, colleges often need to pay more attention to students during the evaluation operation process and satisfy students as the main body to participate in the evaluation. Work. In the student comprehensive quality evaluation system, students as the evaluation subjects can fulfil psychological needs such as a sense of achievement, belonging, respect, and recognition. Therefore, we cannot simply list students as evaluation subjects (personnel); we must fully consider students' interests and needs and provide students with reasonable satisfaction. This is consistent with the starting point of McMahon et al. (2004), who emphasized the diversity of evaluation subjects and gave full play to students' dominant position. This study also proposes improvement strategies from five aspects: having evaluation professional knowledge, having evaluation work experience, strengthening training, diversifying participants, and taking students as the main body.

In terms of evaluation content, the status of the student comprehensive quality evaluation system in Guangdong is at a high level but has yet to reach the highest level. To sum up, there are two main reasons:

1. From the students' perspective, students believe that the evaluation content does not truly reflect their comprehensive quality, and the content needs to be more thorough. There needs to be a unified consensus on the specific components of the evaluation content in the academic community. Conclusions, but they all require evaluation from multiple aspects. This is consistent with Yao's view (2018).
2. From a practical perspective, higher vocational colleges are closely related to industry development and must keep up with industry development needs to cultivate talents. Therefore, student evaluation must adapt to the development needs of society and industry. In short, the differences in the evaluation content and the lack of practical and specific guidance lead to students' need for more clarity on the content of students' comprehensive quality evaluation, which in turn affects the development of students' comprehensive quality abilities.

Regarding evaluation methods, the comprehensive quality evaluation system for students in higher vocational colleges in Guangdong Province is at a high level but has yet to reach the highest level. The reason is mainly related to the unreasonable evaluation methods, evaluation tools, evaluation means, etc. This is consistent with the view of Zhou (2020). He pointed out that although the evaluation system has been improved to a certain extent, in actual operation, the evaluation methods and tools still need to be revised, resulting in the inability to reflect students' actual abilities fully. Current Chinese scholars have recognized this view. However, in addition to these reasons, current evaluation methods should focus more on examining theoretical knowledge, which brings some significant limitations. First, theoretical knowledge examination mainly relies on written tests, written examinations, and other forms. Although this method can measure students' mastery of basic theory, it often needs to pay more attention to practical ability, which is not entirely consistent with the goals and positioning of vocational education. Higher vocational colleges' educational goals are to cultivate skilled talents with practical operation ability and problem-solving ability. Students must not only master theoretical knowledge during school but also be able to apply this knowledge to practical work. However, current evaluation methods cannot fully reflect students' performance in practical sessions. Since the evaluation of practical ability is usually complex and requires special equipment, venues, and the guidance of professional teachers, many institutions still need to improve the assessment methods of practical ability. Therefore, in addition to written examinations, diversified evaluation methods such as project-based assessments, field tasks, and case analysis can be used to comprehensively examine students' theoretical and practical abilities, thereby improving students' overall quality.

In terms of evaluation result feedback and application, the status of evaluation result feedback and application of the comprehensive quality evaluation system for students in higher vocational colleges in Guangdong is high but has yet to reach the highest level. The main reason for this is that the evaluation results are presented in a way that has a lot to do with the insufficient performance of teachers in the evaluation. This is consistent with the views of Li (2022) and Chen (2022). Given these problems, they also believe that although the feedback mechanism for evaluation results is relatively mature, in actual operation, the presentation method of evaluation results and the role of teachers still need to be fully utilized, which affects the practical application of evaluation results. Teachers should be encouraged to participate actively in the evaluation process, use evaluation results to guide teaching and conduct in-depth communication to help students better understand the feedback content. Therefore, in applying evaluation results, students and teachers should actively and objectively face and use the results rationally. This is consistent with the views of Zhou et al. (2023). Based on the above analysis, the comprehensive quality evaluation system of students in Guangdong higher vocational colleges should consider both aspects of work support and provide more extensive support for optimizing evaluation results, feedback, and application.

Part 2: The strategies for improving the comprehensive quality evaluation system for higher vocational college students in Guangdong.

To improve the evaluation subject (personnel) level, the researcher has proposed five strategies for clarifying the evaluation subject (personnel). The measure for the diversity of participants is consistent with the views of Zhao (2015) and Chen (2022). The measure for Students as the main body is consistent with the view of Zhao (2015) and Wang

(2013). In addition to these measures, in response to the results of this study, because evaluators such as students lack evaluation expertise and experience, the researchers recommend 1) strengthening training in professional knowledge, 2) Selecting people with evaluation experience to participate in the evaluation work, 3) Selecting people with evaluation expertise to participate in the evaluation work.

To optimize evaluation content, researchers have proposed five measures in terms of strategies for optimizing evaluation content. Among them, higher vocational colleges should strengthen students' multiple abilities, and Yao (2018) is consistent with this view. The evaluation standards and systematic measures for higher vocational colleges are consistent with the opinions of Zhang (2018) and Shi (2014). The operable measures are consistent with Li (2018). In addition to these measures, since higher vocational colleges are closely related to the development of industries and enterprises, researchers also proposed that the content of student evaluations should meet student development requirements and adapt to social development needs. However, the economic development of various cities in Guangdong is different, and the development of higher vocational colleges is also different. There are significant differences which significantly complicate the achievement of unified evaluation content. Therefore, the research of many scholars, including the solutions proposed in this study, is only a guide in this direction. Consequently, we still need to make more efforts and exploration in this area.

Regarding strategies for improving evaluation methods, the researchers put forward five measures. According to Zadeh(1965), they put forward measures such as process evaluation, result evaluation, multiple evaluation tools, and multiple evaluation methods. According to Wang (2015), researchers put forward measures to adopt an intelligent evaluation system.

In terms of Strategies for optimizing evaluation results feedback and application, researchers have proposed five measures in Strategies for optimizing evaluation results feedback and application. According to Chen (2022); Wang (2020); Zhao (2015); Yang (2014), and Wu (2013) suggested timely feedback on evaluation results, regular feedback meetings, enhanced communication among the three parties, and personalized feedback. In addition, the evaluation results are mainly provided for students' use, and a low teacher to effectively supervise and guide students' continued development (Zhou et al., 2023); he proposed measures of using data analysis.

Part 3: The feasibility of comprehensive quality evaluation system strategies for higher vocational college students in Guangdong.

Regarding strategies for clarifying the evaluation subject (personnel), the feasibility level was at a high level. It could discussed as follows:

1. College students have physically and psychologically matured, and they have independent thoughts, so college students, as the object of evaluation, should not be passively evaluated but should participate as one of the subjects in the evaluation process. This view is consistent with Wang's (2013) opinion. On the other hand, students expect a diversified group of evaluators, which is related to the view of McMahon et al. (2004).
2. China is undergoing educational evaluation reform, which requires a comprehensive evaluation of students, focusing on their overall development in morality, intelligence, physical fitness, aesthetics, and labour. This aligns with the views of Rogers et al. (2011), who emphasize the importance of holistic development. The educational philosophy of vocational colleges and the need for vocational education to align with industry development also require continuous exploration and improvement of evaluation content in practice.
3. The development paths of vocational colleges in northern Guangdong are consistent, and their talent cultivation and evaluation plans are similar. Establishing a relatively unified evaluation method strategy can facilitate mutual learning and promote development, which is related to the view of Yu (2017). Additionally, improving the evaluation method can effectively guide and motivate students' growth in the right direction, which is related to the view of Wang (2015).
4. Compared with ordinary universities, vocational colleges have a closer relationship with enterprises and need more frequent communication and connection regarding student cultivation. Meanwhile, social employers can also have a more comprehensive and three-dimensional understanding of graduates' school life and learning through the evaluation results, which are related to the viewpoints of Wang (2020) and Zhao (2015).

RECOMMENDATION

This study developed strategies to enhance the comprehensive quality evaluation system for higher vocational college students in Guangdong. The proposed strategies address current challenges by involving diverse participants, aligning evaluation content with industry needs, diversifying evaluation methods, and improving feedback mechanisms. The feasibility analysis confirmed the high potential for successful implementation of these strategies.

The research suggests that aligning evaluation practices with industry needs and engaging students as active participants can significantly enhance vocational education. It highlights the need for institutional changes to train evaluators and establish effective feedback systems, ultimately benefiting students and educators in fostering comprehensive skills development.

Institutions should train evaluators, diversify evaluation methods, and establish effective feedback mechanisms. Collaboration with the industry is vital to ensure relevant evaluation content, and pilot implementation is recommended to test the effectiveness of these strategies before scaling up.

REFERENCES

Chen, J. (2022). Research on the comprehensive quality education evaluation system for higher vocational students. *Journal of Hubei Open Vocational College, 35*(3), 35.

Goodfellow, E.A. (2016). *Deep Learning*. MIT Press.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. https://doi.org/10.1177/001316447003000308

Li, C. L. (2022). Research on the comprehensive quality evaluation system of secondary vocational students in Z school. *Journal of Vocational Education Research, 29*(5), 78-85.

Li, H. L. (2018). Research on the comprehensive quality evaluation system and evaluation methods of college students. *Higher Education Studies, 34*(2), 123-130.

Li, Y. M. (2019). Research on the appreciation-oriented comprehensive quality evaluation system of junior high school students. *Journal of Educational Evaluation, 27*(4), 58-65.

McMahon, S. D., Rose, D. S., & Parks, M. (2004). Multiple intelligences and reading achievement: An examination of the Teele inventory of multiple intelligences. *The Journal of Experimental Education,73*(1), 41-52.

Qi, Q. L. (2015). *Research on the application of K-Means clustering algorithm based on 68 Hadoop in the comprehensive quality evaluation of college students.*

Rogers, G., Hart, J. R., & Mentkowski, M. (2011). Holistic development, learning, and performance in college and beyond. In C. Hoare (Ed.), The Oxford Handbook of Reciprocal Adult Development and Learning (2nd ed.). Oxford Library of Psychology. https://doi.org/10.1093/oxfordhb/9780199736300.013.0131

Shi, P. (2014). *A review on the construction of a comprehensive quality evaluation system for students in higher vocational colleges. Journal of Shenzhen Information Polytechnic, 2*(2), 67.

Wang, J. (2013). *Research on the general education model of higher vocational colleges in my country*. Beijing Publishing House.

Wang, K. (2015). *Research on the comprehensive quality evaluation system of college students.* Shanghai University Press.

Wang, W. (2013). *Research on the comprehensive quality evaluation of undergraduates in normal colleges and universities.* Education Science Press.

Wang, W. W. (2020). *Research on the comprehensive quality evaluation of college students.* China University Press.

Wei, J. Z. (2016). *Research on the comprehensive quality evaluation of college students.* Beijing Normal University Press.

Wu, L. Z. (2013). Reconstruction of the comprehensive quality evaluation system for higher vocational students from the perspective of career planning. *Journal of Chongqing Electronic Engineering Vocational College, 20*(1), 13-15.

Yang, J. (2014). Construction of a comprehensive quality evaluation system for higher vocational students. *Vocational and Education, 813*(29), 175-176.

Yang, Q. J. (2014). Construction of comprehensive quality evaluation system for guided students in higher vocational education. *Vocational Education Forum, 2*, 53 55.

Yao, X. Y. (2018). Research on the construction of comprehensive quality evaluation system for higher vocational students. *Cultural Perspective, 4*, 433.

Yu, K. (2017). Research on comprehensive quality evaluation system for university students in the context of the big data era: A case study of Anqing Normal University. *Journal of Educational Research and Development, 24*(3), 45-52.

Zhao, Q. (2023). Construction of a comprehensive quality evaluation system for college students based on AHP analytic hierarchy process. Journal of the University of Shanghai for Science and Technology. *Social Science Edition,45*(1),108.

Zhao, Y. (2015). Thoughts on the construction of the comprehensive quality evaluation system for higher vocational students. *Chinese Adult Education, 23*, 103-105.

Zadeh, L. A. (1965). Fuzzy sets. *Information and Control, 8*(3), 338–353. https://doi.org/10.1016/S0019-9958(65)90241-X

Zhang, Y. (2018). Design and implementation of comprehensive quality evaluation system for students in higher vocational colleges. *Proceedings of the 2018 International Conference on Education, Management, and Social Science (EMSS)*, 249-253.

Zhou, K., Li, C., & Zhu, C.R. (2023). Research on the comprehensive quality evaluation system of higher vocational students under the background of the "Double High Plan". *Research and Practice of Innovation and Entrepreneurship Theory, 7*, 68-69.

Zhou, Y. (2020). Research on the limitations of evaluation systems in higher vocational education. *Journal of Education Development, 35*(4), 102-112.