

DEVELOPMENT OF COMPREHENSIVE QUALITY EVALUATION
SYSTEM STRATEGIES FOR HIGHER VOCATIONAL COLLEGES
STUDENTS IN GUANGDONG

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A thesis paper submitted in partial fulfillment of the requirements for the Degree of
Doctor of Philosophy Program in Educational Management for Sustainable Development

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Title	Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong
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Academic Year	2024

ABSTRACT

The objectives of this study are 1) to study the current status of the overall quality assessment system of higher vocational college students. 2) To develop a strategy to improve the overall quality assessment system of students in Higher Vocational Colleges, and 3) To evaluate the feasibility of strategies to improve the overall quality assessment system of Higher Vocational College students. The sample was from 5 vocational colleges in the northern part of Guangdong Province. The sample size was determined by using the Krejcie and Morgan table. The sample consisted of 382 students, 5 teachers, and 5 administrators by stratified random sampling. The tools used in the research were questionnaires and interviews with a concordance value between 0.50 and 1.00. The statistics used in the analysis were percentage, mean, and standard deviation.

The results showed that:

1. The current condition of the overall quality assessment system of vocational college students consists of 4 aspects: evaluators, evaluation content, evaluation methods, and reflection of evaluation results and implementation.

2. Strategies to improve the overall quality assessment system of vocational college students consists of 4 strategies and 20 measures. As follows: 1) Strategy 1: Strategy for determining evaluators has 5 measures, 2) Strategy 2: Strategy for

improving the evaluation content, 3) Strategy 3: Strategy for developing evaluation methods. There are 5 measures and 4) Strategy 4 Strategy for improving the reflection of evaluation results and implementation, there are 5 measures.

3. The feasibility assessment of the strategy is high.

Keywords: Comprehensive quality evaluation system, Strategy, Higher vocational colleges

ชื่อเรื่อง	การพัฒนากลยุทธ์ระบบการประเมินคุณภาพแบบองค์รวม สำหรับนักศึกษาวิทยาลัยอาชีวศึกษาในมณฑลกวางตุ้ง
ชื่อผู้วิจัย	หวู่ จื่อหยวน
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ปีการศึกษา	2567

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์ 1) เพื่อศึกษาสภาพปัจจุบันของระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาระดับสูง 2) เพื่อพัฒนากลยุทธ์ในการปรับปรุงระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาระดับสูง และ 3) เพื่อประเมินความเป็นไปได้ของกลยุทธ์ในการปรับปรุงระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาระดับสูง กลุ่มตัวอย่างจากวิทยาลัยอาชีวศึกษา 5 แห่งในเขตภาคเหนือของมณฑลกวางตุ้ง กำหนดขนาดกลุ่มตัวอย่างโดยใช้ตาราง Krejcie และ Morgan ประกอบด้วยนักศึกษา 382 คน ครู 5 คน และผู้บริหาร 5 คน โดยวิธีการสุ่มแบบแบ่งชั้น(Stratified random sampling เครื่องมือที่ใช้ในการวิจัย คือ แบบสอบถามและการสัมภาษณ์ ได้ค่าความสอดคล้องระหว่าง 0.50 ถึง 1.00 สถิติที่ใช้ในการวิเคราะห์ ได้แก่ ร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน

ผลการวิจัยพบว่า

1. สภาพปัจจุบันของระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาประกอบด้วย 4 ด้าน ได้แก่ บุคลากรผู้ประเมิน เนื้อหาการประเมิน วิธีการประเมิน และการสะท้อนผลการประเมินและการนำไปใช้ ซึ่งทั้ง 4 ด้านยังต้องการการพัฒนา

2. กลยุทธ์ในการปรับปรุงระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษา ประกอบด้วย 4 กลยุทธ์ 20 มาตรการ ดังนี้ 1) กลยุทธ์ที่ 1 กลยุทธ์สำหรับการกำหนดบุคลากรผู้ประเมิน มี 5 มาตรการ 2) กลยุทธ์ที่ 2 กลยุทธ์สำหรับการปรับปรุงเนื้อหาการประเมินมี 5 มาตรการ 3) กลยุทธ์ที่ 3 กลยุทธ์สำหรับการพัฒนาวิธีการประเมิน มี 5 มาตรการ และ 4) กลยุทธ์ที่ 4 กลยุทธ์สำหรับการปรับปรุงการสะท้อนผลการประเมินและการนำไปใช้ มี 5 มาตรการ

3. การประเมินความเป็นไปได้ของกลยุทธ์ อยู่ในระดับสูง

คำสำคัญ: ระบบการประเมินคุณภาพแบบองค์รวม, กลยุทธ์, วิทยาลัยอาชีวศึกษา

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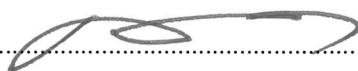
Thesis Title The Comprehensive Quality Evaluation System of Vocational College Students
in Guangdong Province

Author Ms. Wu Ziyuan

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Accepted by Bansomdejchaopraya Rajabhat University in Partial Fulfillment of
the Requirements for the Degree of Doctor of Philosophy in Educational Management for
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The objectives of this study are 1) to study the current status of the overall quality assessment system of higher vocational college students. 2) To develop a strategy to improve the overall quality assessment system of students in Higher Vocational Colleges, and 3) To evaluate the feasibility of strategies to improve the overall quality assessment system of Higher Vocational College students. The sample was from 5 vocational colleges in the northern part of Guangdong Province. The sample size was determined by using the Krejcie and Morgan table. The sample consisted of 382 students, 5 teachers, and 5 administrators by stratified random sampling. The tools used in the research were questionnaires and interviews with a concordance value between 0.50 and 1.00. The statistics used in the analysis were percentage, mean, and standard deviation.

The results showed that:

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ชื่อผู้วิจัย	หวู่ จื่อหยวน
สาขาวิชา	การจัดการการศึกษาเพื่อการพัฒนาที่ยั่งยืน
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บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์ 1) เพื่อศึกษาสภาพปัจจุบันของระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาระดับสูง 2) เพื่อพัฒนากลยุทธ์ในการปรับปรุงระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาระดับสูง และ 3) เพื่อประเมินความเป็นไปได้ของกลยุทธ์ในการปรับปรุงระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาระดับสูง กลุ่มตัวอย่างจากวิทยาลัยอาชีวศึกษา 5 แห่งในเขตภาคเหนือของมณฑลกวางตุ้ง กำหนดขนาดกลุ่มตัวอย่างโดยใช้ตาราง Krejcie และ Morgan ประกอบด้วยนักศึกษา 382 คน ครู 5 คน และผู้บริหาร 5 คน โดยวิธีการสุ่มแบบแบ่งชั้น(Stratified random sampling เครื่องมือที่ใช้ในการวิจัย คือ แบบสอบถามและการสัมภาษณ์ ได้ค่าความสอดคล้องระหว่าง 0.50 ถึง 1.00 สถิติที่ใช้ในการวิเคราะห์ ได้แก่ ร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน

ผลการวิจัยพบว่า

1. สภาพปัจจุบันของระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษาประกอบด้วย 4 ด้าน ได้แก่ บุคลากรผู้ประเมิน เนื้อหาการประเมิน วิธีการประเมิน และการสะท้อนผลการประเมินและการนำไปใช้ ซึ่งทั้ง 4 ด้านยังต้องการการพัฒนา

2. กลยุทธ์ในการปรับปรุงระบบการประเมินคุณภาพโดยรวมของนักศึกษาวิทยาลัยอาชีวศึกษา ประกอบด้วย 4 กลยุทธ์ 20 มาตรการ ดังนี้ 1) กลยุทธ์ที่ 1 กลยุทธ์สำหรับการกำหนดบุคลากรผู้ประเมิน มี 5 มาตรการ 2) กลยุทธ์ที่ 2 กลยุทธ์สำหรับการปรับปรุงเนื้อหาการประเมินมี 5 มาตรการ 3) กลยุทธ์ที่ 3 กลยุทธ์สำหรับการพัฒนาวิธีการประเมิน มี 5 มาตรการ และ 4) กลยุทธ์ที่ 4 กลยุทธ์สำหรับการปรับปรุงการสะท้อนผลการประเมินและการนำไปใช้ มี 5 มาตรการ

3. การประเมินความเป็นไปได้ของกลยุทธ์ อยู่ในระดับสูง

คำสำคัญ: ระบบการประเมินคุณภาพแบบองค์รวม, กลยุทธ์, วิทยาลัยอาชีวศึกษา

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Chapter 1

Introduction

Rationale

Higher vocational education is an important part of higher education. Vocational colleges shoulder the important mission of cultivating high-skilled talents on the front line of production, construction, management, and service for the country. At present, 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. Vocational colleges, as an integral part of higher education institutions, are also facing this serious problem. Wang Wenwen (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 the evaluation and education function and achieve educational goals.

Ministry of Education (2018), The National Education Conference proposed that cultivating socialist builders and successors should focus on strengthening ideals and beliefs, cultivating the spirit of patriotism, strengthening moral cultivation, increasing knowledge and insight, cultivating the spirit of struggle, and improving overall quality. One of the key points is: "Efforts should be made to improve comprehensive quality, and education should guide students to develop comprehensive abilities and cultivate innovative thinking." The importance of cultivating students' comprehensive quality and comprehensive ability was clearly pointed out.

The State Council (2020) formulated the "Overall Plan for Deepening the Reform of Educational Evaluation in the New Era". The plan clearly states adhere to the principle of putting morality first, focusing on ability, and comprehensive development, insisting on facing everyone, teaching students in accordance with their aptitude, and integrating knowledge and practice, resolutely change the practice of labeling students with scores, and innovate the process evaluation method of moral, intellectual, physical, artistic, and labor. Improve the comprehensive quality evaluation system, effectively guide students to strengthen their ideals and beliefs, cultivate patriotism, strengthen moral cultivation, increase knowledge and insight, cultivate 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 Polytechnic. As the person in charge of student comprehensive quality evaluation, the researcher can fully combine work with work to carry out academic research.

Guangdong Provincial Department of Education (2022), In 2022, there will be 93 higher vocational (junior college) colleges and universities in Guangdong Province, with 1.3244 million students enrolled. Among them, there are five higher vocational colleges in five cities in North of Guangdong: Heyuan, Meizhou, Qingyuan, Shaoguan and Yunfu, with 62,300 students enrolled. Why choose North of Guangdong as the research area? Due to geographical reasons, the economy of North of Guangdong is relatively backward. There are five higher vocational colleges including Heyuan Polytechnic, Guangdong Meizhou Polytechnic, Qingyuan Polytechnic, Guangdong Songshan Polytechnic and Luoding Polytechnic. The development is relatively consistent. Therefore, this article selects five higher vocational colleges in five cities in north of Guangdong as the research objects.

In the preliminary study, the researchers found that the comprehensive quality evaluation system of students in five higher vocational colleges including Heyuan Polytechnic has deficiencies in terms of subject, method, content, result feedback and application. Specifically, there are deficiencies in the evaluation

content. There is a certain lag, poor connection with real social needs, the evaluation method is too single, and the evaluation result feedback is not operable enough. Many domestic scholars believe that the imperfection of the comprehensive quality evaluation system for higher vocational students will have a great impact on the effectiveness of higher vocational talent training (Wang Wenwen, 2020). At the same time, the backwardness and singleness of evaluation concepts and methods cannot keep up with the level of national education reform and development. It is believed that the problems existing in the comprehensive quality evaluation system of higher vocational colleges need to be solved urgently. To this end, the researcher chose the students' comprehensive quality evaluation system to conduct research.

Research Questions

1. What is the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong?
2. What are the strategies to improve the comprehensive quality evaluation system for higher vocational colleges students in Guangdong?
3. What is the feasibility of the strategies to improve the comprehensive quality evaluation system for higher vocational colleges students in Guangdong?

Research Objectives

1. To study the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.
2. To provide strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.
3. To evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

Scope of the Research

Population and the Sample Group

Population

The research population includes 70,800 people related of the Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in North of Guangdong. classified as:

1. 62,300 Students
2. 2,700 teachers
3. 580 administrators

The Sample Group

According to Krejcie & Morgan 's sample table, the sample of this study is 382 students from five higher vocational colleges in north of Guangdong. These five higher vocational colleges are Heyuan Polytechnic, Guangdong Meizhou Polytechnic, Qingyuan Polytechnic, Guangdong Songshan Polytechnic, and Luoding Polytechnic.

Purposive sampling was used to select 5 teachers and 5 administrators from 5 higher vocational colleges as interview subjects.

1. Interview 5 teachers. Respondents must have: 1) associate professor or above; 2) working in school for more than 10 years.

2. Interview 5 administrators. The interviewees were the person in charge of academic affairs, the person in charge of student affairs. Respondents must have: 1) Associate professor or above; 2) Have worked in the school for more than 15 years and be familiar with the school's development planning, daily teaching, student management and other specific situations.

To evaluate the comprehensive quality evaluation system strategies for higher vocational colleges students in north of Guangdong. The five experts are all from higher vocational colleges in Guangdong . The qualification requirements for experts are: 1) Engaged in vocational education for more than 15 years; 2) Have rich experience in education management; 3) Associate professor or above.

The Variable

In accordance with the compilation and analysis of relevant theories and research content, the study encompasses the exploration of strategies aimed at promoting the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

Independent Variable

Comprehensive quality evaluation system

1. Evaluation subject (personnel)
2. Evaluation contents
3. Evaluation method
4. Evaluation results feedback and application
5. Strategy Development

Dependent Variable

Development strategies for improving the comprehensive quality evaluation system

Time

The research period is from February to August 2024 and is divided into the following stages:

1) From March to April 2024, collect receipts through questionnaires, and conduct data analysis and literature research. Based on the literature review, this paper aims to understand the current comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong.

2) From May to June 2024, study and formulate a comprehensive quality evaluation system strategy for higher vocational colleges students in north of Guangdong and invite experts to verify the feasibility of the strategy.

3) From July to August 2024, summarize the research results, complete the paper, and publish the paper.

Advantages

1. This research is an important measure to promote the all-round development of students' moral, intellectual, physical, artistic, and labor aspects, and provides a basis for scientific evaluation of students.

2. This research can promote teachers to actively explore evaluation methods and means that adapt to the comprehensive development of students and promote the common development of teachers and students.

3. This research can improve the quality of education and teaching in higher vocational colleges as well as the pertinence and effectiveness of management.

Definition of Terms

Comprehensive quality evaluation system

Comprehensive quality evaluation system refers to the higher vocational colleges, based on the national education guidelines and policies, use a series of feasible methods to formulate a series of numerically measurable indicators and detailed rules that are in line with the educational purposes of the country and higher education institutions. The process of measuring students' moral, aesthetic, intellectual, physical, labor, and other aspects, and using this standard and method to collect, analyze and process the characteristics of students reflected in the indicators, to conduct a comprehensive evaluation and judgment of students.

Strategy

Strategy is to set goals and formulate ways to achieve them. It has both strategic and tactical meanings. Design strategy is an important organic component of organizational strategy. It is the long-term plan and method for design activities made by the organization based on its own situation. It is the basis and necessity for guiding design to innovate reasonably, enhance market competitiveness, and thereby establish a brand. Assure. Design strategy application is a process of interaction between design and business strategy. It uses a systematic approach to allow business strategy to provide a background for design.

Higher vocational colleges

"Higher vocational colleges" refer to higher vocational education levels and levels of colleges and universities that award junior college and undergraduate degrees. Judging from the name, it includes all higher vocational and technical colleges, higher vocational colleges, and colleges and universities that take higher vocational education as the goal of talent training.

Higher vocational college students

Higher vocational college students refer to the group of students studying theory and professional technology in higher vocational colleges. It specifically refers to full-time second-, third-, and fifth-year students who have graduated from ordinary junior high schools, ordinary high schools, secondary vocational schools, or those with equivalent academic qualifications and participated in the unified recruitment of college entrance examinations and then entered higher vocational colleges.

Research Framework

The researchers reviewed and synthesized key documents, concepts, theories, and research related to the comprehensive quality evaluation system for higher vocational colleges students. The studies analyzed included works by Zhou Kui et al. (2023), Li Hua. (2022), Chen Pingjing. (2022), Wang Wenwen. (2020), Zhao Yue. (2015), Yang Jun. (2014), Wu Liangzhou. (2013), and a 2023 study. Based on the criteria established from these works, characteristics with a frequency of three or more were selected to create a framework for this research. Four key characteristics were identified: 1) Evaluation subject (personnel), 2) Evaluation contents, 3) Evaluation method, and 4) Evaluation results feedback and application. As depicted in Figure 1.1.

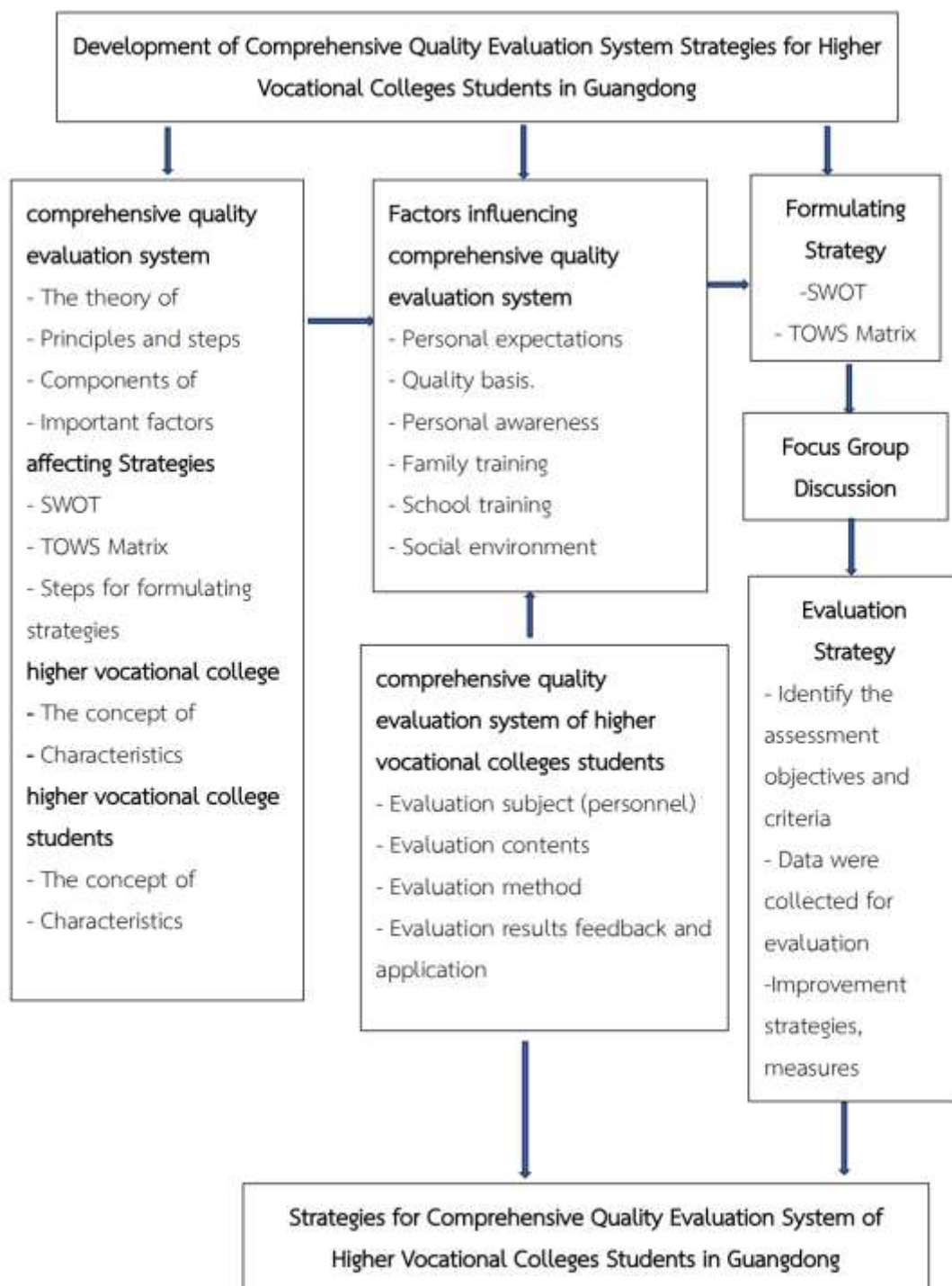


Figure 1.1 Research Framework

Chapter 2

Literature Review

In this study, the researchers referred to the theories and research results of relevant domestic and foreign scholars on the comprehensive quality of students in higher vocational colleges, the evaluation and evaluation system of comprehensive quality of students in higher vocational colleges and conducted detailed demonstrations. On this basis, the researchers analyzed the literature and related research results from the following aspects, as follows:

1. Concepts of comprehensive quality evaluation system
2. Concepts of strategy
3. Concepts of higher vocational college
4. Concepts of higher vocational college students
5. Related Research

Concepts of comprehensive quality evaluation system

Comprehensive quality evaluation system

Different scholars have different views on the definition of comprehensive quality evaluation system.

One view is to collect information from scientific methods. The comprehensive quality evaluation system refers to the use of scientific methods to collect information on the behavioral characteristics of college students in their daily study, life, or work. It includes the evaluators' hearing and seeing, investigation and analysis, making quantitative and qualitative judgments based on the comprehensive quality evaluation goals, and then integrating the evaluation process together (Yu Kan, 2017). Bai Xiaohua (2014) believes that the comprehensive evaluation quality system is a process in which the evaluation subject uses scientific methods to collect the representative information of the evaluated person in the main activity fields and makes quantitative or value judgments based on the comprehensive quality

evaluation target system; or directly from the process of eliciting and inferring certain quality characteristics from representational information.

The second view is that the evaluation system should be discussed from the perspective of combining educational policies and professional needs. The student comprehensive quality evaluation system is based on the party's education policy and the talent training goals of professional education. It scientifically collects representative information on all aspects of students' activities in school, establishes a quality evaluation system that meets the educational goals, and evaluates and judges the quality of students. Management activities (Song Yaxin, 2015). Hu Qian (2014) believes that the definition of the student comprehensive quality evaluation system is: based on the party's education policy and training purposes, through scientific and reasonable collection and arrangement of student information, analyzing the study, life, and study of students in higher vocational colleges. activities, use scientific methods to establish a comprehensive quality evaluation system for students that meets the goals of higher vocational education, and use quantitative and qualitative assessment methods as well as central technology, observation and judgment, performance appraisal and other means to evaluate the comprehensive development of higher vocational students and their Conduct overall evaluation and management activities to predict its future development direction.

The third point of view discusses the definition of the evaluation system from the perspective of professionalism and education. Shen Qian (2016) believes that the student comprehensive quality evaluation system can be defined as: the subjects participating in the evaluation focus on the training goals of students in each major, based on certain educational standards, and use scientific and reasonable methods and means to evaluate the effects of students' comprehensive quality. The activity of value judgment (Xia Chen, 2021). The comprehensive quality evaluation system of college students is a comprehensive value judgment on students' ideological and moral, professional learning, ability and quality, physical and mental health status, and other aspects in school. It is the basis for colleges and universities to implement the fundamental task of cultivating moral character and cultivating people. Talent

cultivation is the top priority (Zhao yue, 2015). Chen Pingping (2022) mentioned that the comprehensive quality evaluation system refers to a practical activity in which the evaluation subject comprehensively evaluates students' moral, intellectual, physical, artistic, and other qualities based on extensive collection of evidence and comprehensive opinions from all parties. An assessment process designed to promote the comprehensive and individual development of students. (Feng Kunlun, 2022).

In short, the currently more recognized definition is the second view. Then, the definition of comprehensive quality evaluation in this study means that higher vocational colleges, based on the national education guidelines and policies, use a series of feasible methods to formulate a series of educational objectives that are in line with the country and higher education institutions and can be measured with numbers. Use indicators and rules to measure students' moral, aesthetic, intellectual, physical, labor and other aspects, and use these standards and methods to collect, analyze and process the characteristics of students reflected in the indicators, to comprehensively evaluate students. The process of evaluation and judgment.

The theory of comprehensive quality evaluation system

Marxist theory on the comprehensive development of human beings. Marx first proposed the theory of comprehensive development of human beings in the "1844 Economic and Philosophical Manuscripts", in which he proposed the concept of comprehensive human development. The "Communist Manifesto" points out: The all-round development of human beings is the ideal goal of communists and the basic principle of communist society, which lays a solid foundation for the idea of comprehensive human development to mature (Mar, 1844). Marxism starts from the analysis of real people and real production relations, and points out the conditions, means and approaches for the all-round development of human beings. The all-round development of human beings has its basic connotation, which includes the comprehensive development of human labor activities and the comprehensive development of human abilities. development, the comprehensive development of human social relations, the comprehensive development of human free personality,

the comprehensive development of human needs, and the comprehensive development of human beings.

Human capital theory. The human capital theory has two core viewpoints: first, the role of human capital is greater than the role of physical capital in economic growth; second, the core of improving human capital is to improve the quality of the population, and the main way to improve human capital is investment in education. Schultz (1960) believed that human capital is capital embodied in workers, including various labor skills, educational levels, and health qualities of workers, and divided human capital into learning ability, creativity, and ability to complete effective tasks. The ability to work meaningfully, the ability to cope with imbalance and the ability to carry out various recreational activities. Human capital theory contributes to this study's in-depth analysis of students' comprehensive quality needs.

Multiple intelligence theory. The theory of multiple intelligences believes that human beings have at least seven intelligences, including linguistic intelligence, mathematical logic intelligence, musical intelligence, spatial intelligence, body movement intelligence, interpersonal intelligence, and self-understanding intelligence. Based on the above seven intelligences, Gardner in 1996, the theory was expanded, and the eighth intelligence was proposed: Naturalist Intelligence, which refers to human beings' ability to identify and discern the natural environment and objects. Gardner believes that with the further development of related disciplines, the types of multiple intelligences may be further expanded. The contribution and role of the theoretical basis of multiple intelligences to modern education evaluation is to promote a comprehensive and diversified view of talents under the existing education system, that is, the development of society requires diversified talents, and every student has his or her own superior intelligence (Gardner, 1983).

Competency theory. American psychologist McClelland (1973) published research results in "American Psychologist" and proposed the concept of "competence" and the idea of "measuring competency rather than just intelligence", as well as the famous competency in the field of human resources management. Competence "iceberg model" (Figure 2.1). The competency iceberg model describes

human quality as an iceberg floating on the ocean. Among them, knowledge and skills belong to the surface part that appears above the sea and are called "benchmarks." "Threshold Competence"; and the quality hidden under the sea is called "Differentiating Competence". Baseline quality can be obtained and improved through learning, training, etc. and can be easily observed and measured, while discriminating quality The personality qualities, attitudes, values, etc. represented by qualities are not easy to be observed, measured, and evaluated, and are difficult to improve through acquired training. The iceberg model divides competency into six levels: 1) Knowledge: refers to the effective information possessed by individuals in certain fields, including information and experiential information. 2) Skill: refers to an individual's ability to master specific technologies and complete specific work or tasks in a certain field through the effective use of knowledge. 3) Social Roles: refers to the behavior and style of a person's world view, outlook on life, values and attitude towards others. 4) Self-Concept: refers to a person's self-perception and self-image. 5) Traits: refers to the personality, qualities, and characteristics displayed by a person. 6) Motives: refers to the external driving forces that drive, guide, and determine people's behavior (such as sense of accomplishment, influence, affinity, etc.).



Figure 2.1 Competency iceberg model

(Source: Bai Xiaohua, 175)

Competency theory can be used in the practice of talent evaluation. In addition to traditional evaluation methods, it also adds related evaluation tools and methods such as psychological assessment, role playing, and scenario simulation.

All in all, there are many theories on the comprehensive quality evaluation system, and the academic community believes that the above four theories can be represented. Researchers believe that the theory of comprehensive human development is one of the basic principles of Marxism and the theoretical cornerstone of my country's education policy. It is also what we often say that education should cultivate students to achieve comprehensive development in moral, intellectual, physical, aesthetic and labor aspects. develop.

Principles and steps for building a system

Principles for building systems

Comprehensiveness principle. The principle of comprehensiveness means that the comprehensive quality index system should not only face all students, but also scientifically screen the content related to students' growth and success, and then reflect it from multiple levels and angles to ensure that the evaluation results can be comprehensive. It can accurately reflect the comprehensive quality level of students (Liu Xin, 2014). The principle of comprehensiveness requires that the selection of evaluation content should be comprehensive, cover all the essence of students' quality, and reflect the concept of quality education, the educational goals of colleges and universities, and society's quality requirements for professional talents (Shen Qian, 2016). The principle of comprehensiveness has two meanings. First, the quality assessment of college students must cover all students, and second, the various qualities that college students should possess can be fully reflected through indicators (Zhao Qi, 2023). Huang Dechun (2017) mentioned that, first, the principle of comprehensiveness should be oriented to all students, which means that the design of the indicator system should be able to see the development level of all students in the evaluation of students' comprehensive quality. Second, the principle of comprehensiveness should pay attention to the overall functional and comprehensive effects of each element in the student's comprehensive quality

evaluation index system. Third, the evaluation system should cover all aspects of students' knowledge, skills, attitudes, values, etc., to achieve the evaluation of students' comprehensive development.

Guiding principles. The guiding principle is the fundamental principle in the design of the comprehensive quality evaluation system for college students (Yu Kan, 2017). The guiding principle is the guiding ideology of the all-round quality education evaluation system. Its meaning is to make full use of the evaluation objectives to allow students' knowledge, abilities, and qualities to develop comprehensively, vividly, and harmoniously, and to play a "navigation" role in the development of students' all-round quality (LYU Hongbin, 2017). The guiding principle, that is, the application of the comprehensive quality evaluation system has a guiding effect on the behavior of the evaluated objects, can guide the evaluated objects to develop toward the set training goals, and promote the evaluated objects' self-understanding, self-education, and self-improvement (Li Xuan, 2014). Zhang Jianhua (2014) mentioned that the selection of evaluation content, the formulation of evaluation standards, and the application of evaluation methods must reflect the development trend of the industry, reflect the actual job needs of the enterprise, and play a certain role in cultivating students' comprehensive quality from the perspective of development. guiding role. (Wang Kai, 2015).

Developmental principle. The content of students' comprehensive quality evaluation must remain forward-looking and sustainable and benchmark the country and society's needs for talents as well as students' needs for growth and success (Lu Baoping, 2023). In the construction of the system, the professional ability and literacy needs of the real society must be the first content arrangement to be taken into consideration and designed, because responding to reality is the foothold of all scientific research (Li Chunlan, 2020). As society continues to progress, the society's demand for talents will also undergo some changes. Therefore, the establishment of the indicator system must be based on dynamic development and must be forward-looking and sustainable to meet the current and future needs. The need for time-based student quality evaluation (Qi Qiaoling, 2015).

Operability principle. The principle of operability means that the setting of various indicators and parameters in the evaluation system must be based on objective reality and based on scientific principles (Wang Kai, 2015). The evaluation of students' comprehensive quality should follow the principles of "measurable, comparable, and simple", scientifically set various indicators in the evaluation of students' comprehensive quality, and improve the evaluation system (Lu Baoping, 2023). Operability mainly grasps three aspects: first, comparability, second, measurability, and third, simplicity (Zhang Jianhua, 2014). The various quantitative and qualitative methods involved in the comprehensive quality evaluation system must be operable (Li Xuan, 2014). In the process of constructing a comprehensive quality evaluation system, the evaluation subject or reader can clearly understand and intuitively obtain the surface content and deep meaning of the evaluation, thereby facilitating evaluation activities (Li Chunlan, 2020). The student comprehensive quality evaluation index system strives to be simple and feasible, and the statistical method of evaluation information is simple and operable (Zhang Yanqiong, 2014).

Hierarchical principle. The principle of hierarchy is a concrete manifestation of respecting the differences in individual development. The quality structure of students can be divided into two levels, namely the obligation level and the pursuit level. The obligation level is the most basic requirement for college students' theoretical study, cultural accomplishment, scientific literacy, and psychological quality, and is mandatory. The pursuit level is to guide students to pay attention to the improvement of overall quality, have a noble ideological realm, high quality cultivation, and become college students with excellent quality (Chen Wenjuan, 2016). The specific embodiment of developmental evaluation thought, and evaluation thought that respects the difference in individual development is the principle of hierarchy (Zhang Yanqiong, 2014). The principle of hierarchy is a concrete embodiment of the idea of developmental evaluation and respect for the differences in individual development (LYU Hongbin, 2017). The principle of hierarchy is to form a hierarchical, rationally structured, and interrelated whole according to the

progressive relationship to ensure the scientific nature of the evaluation results (Yu Kan, 2017). The principle of hierarchy refers to formulating goals for each stage around the overall goal, and at the same time determining different directions of efforts based on the actual situation of the overall quality of the evaluation object (Liu Xin, 2014).

Scientific principles. The principle of scientific means that the selection must be comprehensive, hierarchical, independent, operable, and consistent. The basic ideas, basic processes and calculation methods of system construction must have a scientific basis (Shen Qian, 2016). First, to achieve the scientific development of students themselves, we must always adhere to a student-oriented, comprehensive, coordinated, and sustainable development concept (Wang Kai, 2015). Secondly, as a practical activity to evaluate the comprehensive quality of students in higher vocational colleges, it should be carried out under the norms and guidance of scientific educational theories (Zhang Yanqiong, 2014). Finally, we must have a scientific attitude, be objective, fair, and realistic about the indicator system, and use correct value judgment methods (Huang Dechun, 2017).

Researchers believe that the most fundamental purpose of the evaluation system is not to classify students as good or bad, but to make the evaluation objects clarify the direction of their success through evaluation and strive to improve their own qualities through affirmation or denial. The construction of the evaluation system must be based on reality, be scientific, effective, and practical, Refer to Table 2.1.

Table 2.1 Lists of Principle

principle \ Author	Liu Xin (2014)	Shen Qian (2016)	Zhao Qi (2023)	Huang Dechun (2017)	Yu Kan (2017)	LYU Hongbin (2017)	Li Xuan (2014)	Zhang Jianhua (2014)	Wang Kai (2015)	Lu Baoping (2023)	Li Chunlan (2020)	Qi Qiaoling (2015)	Zhang Yangqiong (2014)	Chen Wenjuan (2016)	Total
Comprehensive ness principle	√	√	√	√											4
Guiding principles					√	√	√	√	√						5
Developmental principle									√	√	√	√			4
Operability principle							√	√	√	√	√		√		6
Hierarchical principle	√				√	√							√	√	5
Scientific principles		√		√					√				√		4

According to Table 2.1, the researchers analyzed and synthesized relevant studies on constructing a comprehensive quality evaluation system for students, including Liu (2014); Shen (2016); Zhao (2023); Huang (2017); Yu (2017); LYU (2017); Li (2014); Zhang (2014); Wang (2015); Lu (2023); Li (2020); Qi (2015); Zhang (2014); Chen (2016). Researchers use these criteria to consider corresponding principles. At the same time, by selecting features with a frequency of 4 or more. Six principles can be synthesized: 1) Comprehensive principle, 2) Guiding principle, 3) Developmental principle, 4) Operability principle, 5) Hierarchical principle, and 6) Scientific principle.

Steps to build a system

Basic steps for student comprehensive quality evaluation: 1) Theoretical basis. Structural equation modeling is feasible for factor aggregation. 2) Data collection. Data are collected based on the observation indicators given in the set theoretical model of student comprehensive quality evaluation. 3) Model construction. In the construction of the system, it is mainly necessary to determine the relationship between various measurement elements and parameters of students' comprehensive quality. 4) Model identification. After the student comprehensive quality evaluation model is established, it becomes a problem of identification. 5) Parameter estimation. The goal is to find parameters so that the "gap" between the model's implicit covariance matrix and the sample covariance matrix is minimized. 6) Model evaluation. Model evaluation is to evaluate the fit of the model to the data, which can be carried out from two aspects: one is parameter testing. On the other hand, is the fit index. 7) Model correction. Based on the evaluation results, a relatively good model that is both theoretically and statistically meaningful is sought. 8) Interpretation of the model. Model explanation generally explains the direct effects and comprehensive effects between variables (Tang Runchun, 2013).

Bai Xiaohua (2014) believes that the steps to develop a comprehensive quality evaluation system are: the first step is to clarify the evaluation objectives. The second step is to analyze the evaluation factors. The third step is to determine the evaluation index system. The fourth step is to formulate a quantitative structure of evaluation indicators. The fifth step is to determine the evaluation method. The sixth step is individual evaluation. The seventh step is comprehensive evaluation. As shown below.

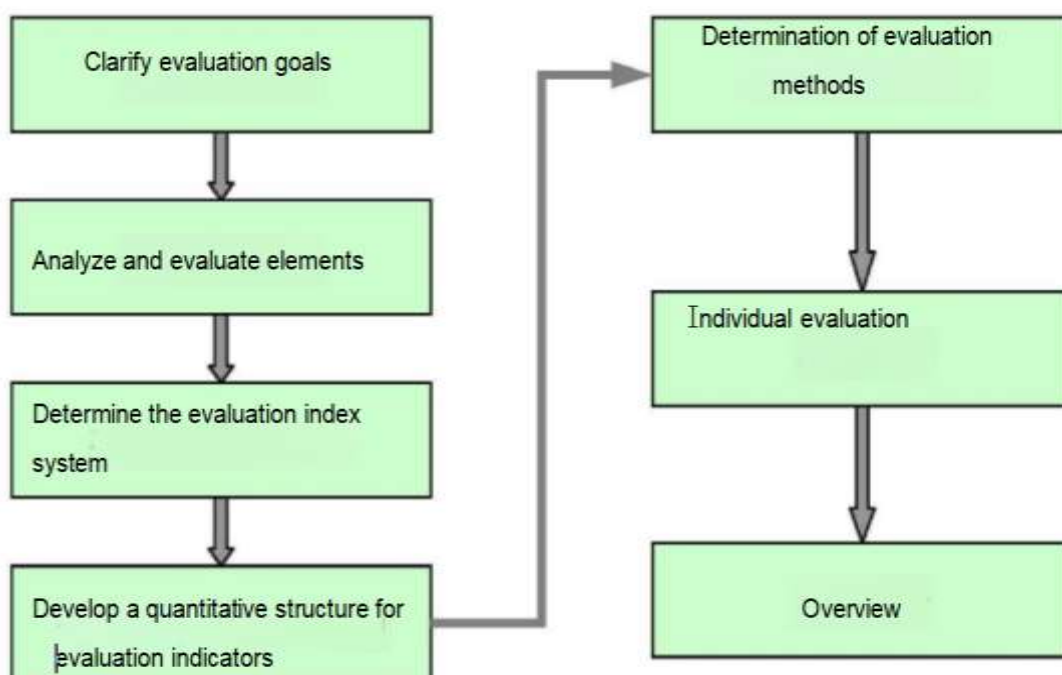


Figure 2.2 Comprehensive quality evaluation step chart

(Source: Bai Xiaohua, 188)

Wang Kai (2015) mentioned that the general steps for building an evaluation system include: 1) Preparation stage. Organizational preparation. This process mainly includes the establishment of a comprehensive quality evaluation leading organization and the establishment of an evaluation working group. Personnel preparation. This process includes organizing relevant responsible persons and staff to learn and master the implementation methods of comprehensive evaluation. Plan preparation. The time, objects and scope of evaluation must be reasonably planned, and the evaluation standards and methods must be fully demonstrated and published. 2) Implementation stage. Collection of evaluation information. Common collection methods include questionnaire method, interview method, observation method, etc. Sort out the evaluation information. The process starts with classification; secondly, identification; and finally, archiving. Evaluation information accounting. This process calculates the evaluation information that has been sorted out based on the principle of combining quantitative and qualitative methods.

Integration of evaluation information. This process is the last link in the implementation stage, which is to summarize the sub-evaluation results of the indicator system at all levels into comprehensive evaluation results through mathematical statistics and other methods. 3) Evaluation results feedback and processing stage. This process is the "end" of the entire comprehensive quality evaluation process. It requires timely feedback of the comprehensive evaluation results obtained through mathematical statistical analysis to the relevant departments of the school and college. Take appropriate measures to feed back the statistical results of the class (or major) to the students themselves, so that students can apply for scholarships and bursaries and identify deficiencies, to make targeted improvements.

Han Cuiling and Jing Dezhong (2016) mentioned the steps of construction, 1) Determine the evaluation index system based on research and analysis. The evaluation contents of the evaluation index system include five aspects: ideological and moral quality, professional and technical quality, physical and mental quality, developmental potential, and innovative ability. Expert review, evaluation index attributes and analysis methods are used to determine the dynamic weight of each indicator under different evaluation levels. 2) Based on the formulation of weighted fusion processing of evaluation indicators and research indicators, a software operating platform for student quality evaluation has been initially developed, which can timely enter the evaluation results of student administrators, teachers and third parties, and provide timely feedback to students through text messages., and provide consulting services to support student development, providing personalized guidance for students' next development goals and the realization of these goals.

Zhao Qi (2023) mentioned that the entire implementation process also needs to go through different stages such as early preparation, mid-term implementation, and later evaluation and feedback. 1) Preliminary preparation. The preliminary preparation work is carried out in four steps. First, clarify the purpose of evaluation. Second, determine the evaluation subject. Third, formulate an evaluation plan and implementation details. Fourth, ideological mobilization and personnel training.

2) Implementation process. Extensively collect information and establish a factual database; Process the obtained information and form value judgments; Improve the supervision mechanism and improve reward and punishment measures. 3) Summarize feedback. The summary feedback mainly focuses on three aspects. First, feedback the comprehensive quality evaluation results of college students obtained through calculation and analysis to relevant departments and individuals. Second, summary feedback is a reflection on the entire evaluation process. Third, establish comprehensive quality files of college students and build an evaluation information system.

Wei Yuping, Tan Rongfan and Wei Lanmin (2023) mentioned the implementation steps of the evaluation system. The first step is to define the evaluation objectives. At this stage, students' level of knowledge mastery, skill application, moral quality, innovative spirit, etc. should be considered. The second step is to formulate evaluation criteria. The standards should include the evaluation content of each comprehensive quality and should also ensure objectivity and fairness. The third step is to choose the evaluation method. Use diversified evaluation methods, such as test scoring, teacher evaluation, peer evaluation, self-evaluation, practical activity evaluation, etc. The fourth step is to implement the evaluation. During this process, evaluation data need to be collected and recorded to ensure the fairness and accuracy of the evaluation. The fifth step is data analysis. Conduct in-depth analysis and sorting of the collected evaluation data to form a detailed evaluation report. The sixth step is to provide feedback on the evaluation results. Provide timely and clear feedback on evaluation results to students, teachers, and school management. The seventh step is to revise and improve the evaluation system. The evaluation system will be revised and improved based on the evaluation results to better adapt to changes in the educational environment and social needs.

Components of the comprehensive quality evaluation system

Evaluation subject (personnel)

The first subject of evaluation is the student. Student self-evaluation can meet students individualized and specific psychological needs during their growth period (Zhao Yue, 2015). College students are mature physically and psychologically and have their own independent ideas. Therefore, college students as evaluation objects should not be passively evaluated but should participate in the entire evaluation process as one of the subjects (Wang Wei, 2013). Guided evaluation takes students as the main body of evaluation and allows students to participate in the entire evaluation process (Yang Qingjian, 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 easiest to communicate (Li Yimei, 2019). The self-evaluation of college students focuses on enabling students to understand their own situation, objectively evaluate their self-performance, effectively reflect on their own behavior, and plan their own development path. Mc Mahon S D, Rose D S and Parks M. (2004) mentioned that it emphasizes the diversity of evaluation subjects and gives full play to students' dominant position. It not only includes teachers' evaluation, but also pays more attention to students' self-evaluation, emphasizing the students' dominant position.

The class evaluation group composed of ordinary student representatives and class cadre representatives is also one of the main groups that carries out the comprehensive quality evaluation of college students (Wang Wenwen, 2020). Student representation is indispensable. Secondly, students' self-evaluation should also be added to allow students to make a self-summary of their performance in the past semester and see their own strengths and weaknesses (Sun Huijuan, 2014).

The second subject of evaluation is the teacher. In the new era, in the practice of comprehensive quality evaluation, the main body of evaluation is mainly student-centered. Teachers, as instructors, need to improve their theoretical literacy based on collecting relevant evidence. Then, through the collection of data on students' growth and development processes, it is found that and nurturing

students' personalities. (Chen Pingping, 2022). Under the requirement of "integrating teaching management and student services" to educate all members of the school, not only student workers such as counselors, class teachers, and apartment administrators must participate in the evaluation, but professional teachers and school employees also serve as evaluation subjects. According to the project authorization Evaluate students' performance in a certain period (Zhao Yue, 2015). Representatives of classroom teachers should also actively participate in comprehensive quality evaluation activities because they are important evaluators of students' first classroom performance (Wang Wenwen, 2020).

Administrator not only play the regulatory role of the four main bodies of comprehensive quality evaluation and evidence-based practice, but also are the regulators of evidence. Vocational colleges cooperate closely with enterprises, industries, etc., and it is also a general trend for them to participate in comprehensive quality evaluation (Chen Pingping, 2022). As the leader in the implementation of comprehensive quality evaluation, counselors grasp the guiding ideology, development direction and development methods of the entire evaluation process. The evaluation group is organized by counselors and elected by the class, with class student representatives and cadre representatives as members. It is also a group of college students. One of the main subjects for comprehensive quality evaluation (Wang Wei, 2013). Counselors understand students' daily performance and can evaluate students' comprehensive qualities comprehensively and timely (Han Cuiling and Jing Dezhong, 2016).

The third subject is social force. Higher vocational education emphasizes the connection between talent training and social needs, and enterprises and society should also participate in the evaluation of students' comprehensive quality in various ways (Chen Guomin, 2015). The evaluation results of the independent assessment system, which is uniformly developed by industry associations in accordance with professional standards, help students formulate career development plans (Han Cuiling and Jing Dezhong, 2016). For example, when companies carry out third-party evaluation work, they usually need industry associations to develop

corresponding evaluation systems in accordance with relevant professional standards, and students are required to meet professional standards, which is important for students' future career direction planning and development. Words are very important (Chen Jie, 2022).

College education cultivates high-quality talents for social employers, and it is also a very important part to allow units such as practical internships to participate in students' comprehensive quality evaluation activities (Wang Wenwen, 2020). Normal students are the main component of future teachers, and primary and secondary schools and education and training institutions should also participate in the evaluation of normal students as evaluation subjects (Sun Huijuan, 2014). Zhao Yue (2015) mentioned that the third subject is the corporate industry society. It is more reflected through the evaluation of practical training, practice, and other work of higher vocational students, and then incorporated into the comprehensive quality evaluation system. The evaluation of students' comprehensive quality should consider the attention, praise and support given to student models by the government and other superior authorities, social media, social welfare organizations, relevant social institutions, etc., and then through the cultivation of "role models around them", it can be more truly and vividly reflected socialist core value.

All in all, Evaluation subject (personnel) refers to the need to establish a multiple mechanism for teachers, students, and social forces to jointly participate in the evaluation. In view of the talent training model of higher vocational colleges, the evaluation subjects of students' comprehensive quality evaluation should include, in addition to professional teacher evaluation, student self-evaluation and mutual evaluation, base enterprises, graduation internship enterprises and other enterprise evaluators.

Evaluation contents

The evaluation content covers 6 aspects. Duan Meiling (2019) believes that the main contents of comprehensive quality evaluation are: 1) Political and ideological evaluation, including political thought, morality, behavior, emotion, etc.; 2) Intellectual quality evaluation mainly includes academic performance, Ways of

thinking and the ability to analyze and solve problems in the process of mastering knowledge; 3) Physical and mental quality evaluation, including physical development, physical strength, energy, healthy habits, mental health, etc.; 4) Aesthetic awareness evaluation mainly includes aesthetic ability and aesthetic education skill level; 5) The evaluation of innovative practice ability mainly includes creative thinking ability, pioneering and innovative ability and social practice ability; 6) The evaluation of personality development refers to the evaluation of interests, hobbies, will and personality traits.

Comprehensive quality evaluation includes many aspects, and relevant experts believe that it should include 5 aspects. Among them, key indicators such as college students' personal moral development level, personal and average academic development level, physical and mental development, specialty development and guidance, and academic burden status should become the evaluation content. It aims to comprehensively examine the latest development status of students, and comprehensively examine the latest development status of students in many aspects. to pay attention to students' learning and life (Yao Xiaoyu, 2018). Wei Jingzhu. (2016) mentioned that the evaluation content should include the following aspects, namely: ideological and moral quality, scientific and cultural quality, ability quality, humanistic quality and physical and mental quality. Li Hailin (2018) believes that the comprehensive quality of college students mainly includes ideological and moral quality, professional quality, physical and mental health quality, humanistic quality, and ability quality, etc.

Combining the requirements of common and characteristic qualities, students' comprehensive quality can be determined as five modules: ideological and moral quality, knowledge quality, ability quality, physical and mental quality, and labor technical quality (Guo Bin, 2018). Some scholars have proposed to evaluate the level of cooperative learning, deep learning methods, theoretical course learning participation, professional training participation and extensive learning participation (Zhang Qinghua, 2018). Wang Kai (2015) believes that in the specific operation link, evaluation can be carried out based on a combination of quantitative calculation and

qualitative description. The content mainly includes the following aspects: ideological and moral quality, learning ability quality, personal development quality, humanistic quality, and physical and mental health quality.

The basic components of the comprehensive quality evaluation system are "four": referring to the four evaluation dimensions. Including "moral education quality evaluation", "intellectual education quality evaluation", "cultural and sports quality evaluation", and "ability quality evaluation". "Three": refers to the three evaluation subjects. Distinguish between teachers, classmates, and yourself. "Two": refers to two evaluation methods. The first is the combination of quantitative evaluation and qualitative evaluation; the second is process evaluation and summative evaluation (Li Chunlan, 2020). Qiu Chunhong and Zhu Xiaoshe (2018) mentioned that the comprehensive quality of students in higher vocational colleges should include four parts. First, ideological, and moral quality. Including ideological and moral quality, ideological and political quality, legal concept quality, etc., it reflects whether an individual has a correct world outlook, outlook on life, and values. Second, cultural quality. Examine the students' professional knowledge, application ability of knowledge, and continuous learning quality. Third, ability and quality. Refers to basic learning ability and practical ability. Fourth, physical and mental quality. Including physical quality and psychological quality. He Yi (2014) believes that the content of evaluation should include: 1) Evaluation of knowledge level. 2) Evaluation of interest in learning. 3) Evaluation of students' learning ability. 4) Evaluation of the ideological and moral awareness of information technology disciplines.

Through the survey, we learned that half of the colleges still divide the content of students' comprehensive quality evaluation into three aspects: moral, intellectual, and physical, while the other half of the colleges have added ability assessment on this basis. Although the evaluation has gradually shifted from intelligence evaluation, which mainly examines knowledge memory, to attaching importance to ideological and moral evaluation and ability testing, intellectual evaluation, that is, academic performance, is still the most important part of comprehensive quality evaluation, and most colleges and universities still attach

great importance to academic performance. (Sun Huijuan, 2014) As for the content of students' comprehensive quality evaluation, academic performance should play a leading role in many contents of the evaluation. The second is the performance of students' abilities in various aspects, the third is the moral performance of students, and the last is the performance of style and style (Wang Wei, 2013).

Shi Ping (2014) mentioned that the evaluation content should include evaluation indicators, evaluation methods, implementation procedures and other aspects. Among them, indicators are the foothold for the realization of system functions. Whether the indicators are representative and operable is the key to whether the evaluation system is scientific and effective. Evaluation methods and implementation procedures are the guarantee for the smooth implementation of the evaluation system. Zhang Yuan (2018) mentioned that the evaluation system mainly consists of the following parts: 1) Determine the composition of comprehensive quality scores. The comprehensive quality score consists of the student's final grade and the student's self-rating. 2) Students' self-evaluation of course learning during school. Students' self-evaluation of course learning shall be done by the students themselves. 3) Review and evaluate the self-portrait scores. The school management department will review the students' self-portrait scores, review the weight of the final exam scores and self-portrait scores of each course, and finally calculate the overall quality score.

Korfmacher divides student quality evaluation into two types: "evaluation of best performance" and "evaluation of usual performance." "Evaluation of best performance" refers to the best performance that students can achieve under the conditions of giving full play to their abilities. "Usual performance evaluation" focuses on obtaining students' outstanding reactions in daily situations through observation and daily records, and is mainly used to judge students' interests, attitudes, and other personality qualities (Spmule Robert, 2002).

In short, Evaluation content refers to the foundation of cultivating people with moral character, based on "moral education", "intellectual education", "sports", "aesthetic education" and "labor education", from the aspects of political literacy,

moral character, responsibility, academic level, ability improvement, physical and mental health, Comprehensive quality evaluation content is constructed in aspects such as culture and art, labor literacy, volunteer service, and social practice.

Evaluation method

Different scholars have different views on comprehensive quality evaluation methods and have produced many evaluation methods, including the following methods.

1. Analytic hierarchy process. The analytic hierarchy process is a systematic and hierarchical analysis method that combines qualitative and quantitative methods. This method quantifies the decision-maker's 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 (Thomas L. Saaty, 1971).

2. Fuzzy comprehensive evaluation method. Fuzzy comprehensive evaluation is a method that is based on fuzzy mathematics and applies the principle of fuzzy relationship synthesis to quantify some factors with unclear boundaries and difficult to quantify, and comprehensively evaluate the status of the evaluated things from multiple factors. It has better evaluation effect on multi-factor and multi-level complex problems and is a method that is difficult to replace by other branches of mathematics and models. The basic steps of the fuzzy comprehensive evaluation method: the first step is to determine the evaluation factors and evaluation levels; the second step is to construct the evaluation matrix and determine the weights; the third step is to perform fuzzy synthesis to obtain the evaluation results (L.A. Zadeh, 1965).

3. Gray correlation method. In 1982, Professor Deng Julong of Huazhong University of Science and Technology first proposed the concept of gray system and established gray system theory. Gray correlation analysis method is also one of the main aspects of the application of gray system theory. The basic principle of gray correlation evaluation is that gray correlation analysis believes that the closer the

geometric shapes of the curves composed of several statistical series are, that is, the more parallel the curves are, the closer their changing trends are and the greater the correlation is. From this, the evaluation objects can be compared and sorted using the degree of correlation between each plan and the optimal plan. First, it is necessary to obtain the correlation coefficient matrix of the ideal solution composed of each method and the best index, and then obtain the correlation degree from the correlation coefficient matrix to sort and analyze according to the magnitude of the correlation degree (Deng Julong, 1985).

4. Neural network network' analysis method. The neural network method can weaken the human factors in calculating the weight vector, can handle noisy or incomplete data, has strong generalization function and fault tolerance, and can handle complex nonlinear relationships, so it is widely used in many fields. field. It has a simple structure and good function approximation ability. If many objective training samples are used for learning, it can better reflect the nonlinear relationship between the input and output comprehensive evaluation of indicator items. The principle of the neural network analysis method is to use the value of each evaluation index as an input item in the network model, use the evaluation results as an output item, and use many samples to train the network, so that the network can learn the weight of each index and the judgment of evaluation experts. Information related to experience and professional knowledge is used to obtain evaluation results using measured values (Goodfellow, E.A. 2016).

5. Delphi method. The Delphi method, also known as the expert scoring method, is to anonymously solicit expert opinions in writing, summarize the expert opinions, and make reasonable estimates based on comprehensive consideration of the experience of most experts. After multiple rounds of consultation and feedback, finally Summarized into a basically unanimous opinion of experts as the result of prediction. The specific implementation steps of the Delphi method are as follows (Method.D, Helmer, 1946): The first step is to select experts. Select experts with both practical work experience and deep theoretical training in this professional field, usually 30-50 people; the second step is to determine the influencing factors of the

problem and design an analysis and consultation form; the third step is to provide all experts with The problem to be predicted and the relevant requirements are attached, and all background materials about the problem are attached, and the experts are asked to give independent opinions; the fourth step is to analyze and summarize the expert opinions and feed the results back to the experts; the fifth step is for the experts to revise their own opinions Opinions; the sixth step is to form a final conclusion after multiple rounds of soliciting opinions and feedback results.

6. Statistical analysis methods

Principal component analysis is one of the statistical analysis methods commonly used in evaluation research. It is a multivariate statistical method that examines the correlation between multiple variables. It combines multiple original indicators through linear transformation to form a mutually independent A few indicators that can reflect overall information. It is often used to find comprehensive indicators to judge a certain thing or phenomenon, and to give a reasonable explanation to the information contained in the comprehensive indicators, thereby further revealing the internal connections and laws of things (Karl Parson, 1901).

Factor analysis is an extension of principal component analysis. Factor analysis uses a few variables to describe the covariance relationship between multiple variables. The idea is to first classify the evaluation variables, and then divide the variables with higher correlation or closer connection into the same category. The variables of each category represent an essential factor, so that the set of original observation variables can be expressed as a new factor. A linear combination (Spearman, 1904).

The commonly used comprehensive evaluation methods are the above 6 types: 1) Analytical hierarchy process; 2) Fuzzy comprehensive evaluation method; 3) Artificial neural network analysis method; 4) Gray correlation method; 5) Delphi method; 6) Statistical analysis method. Refer to Table 2.2.

Table 2.2 Summary of evaluation methods

Researcher	Method
Thomas L. Saaty	Analytic hierarchy process.
L.A. Zadeh	Fuzzy comprehensive evaluation method
Deng Julong	Gray correlation method
Goodfellow, E. A	Neural network analysis method
Method.D, Helmer	Delphi method
Karl parson	Statistical analysis methods

The researcher found that the comprehensive quality evaluation system that needs to be constructed in this study involves multiple quality items of students, and has different indicators and evaluation values according to different aspects of different quality performances. The analytic hierarchy process reflects this kind of hierarchical soil. It has the characteristics of a progressive system. Combined with the practical application of this study, 1) use the analytic hierarchy process to assign weights to the course tests, practical activities, growth evaluations, credit hours, etc. involved in the comprehensive quality evaluation of students, and then determine the scores of the students in each evaluation, thereby evaluating Students conduct comprehensive evaluation; 2) The fuzzy comprehensive evaluation rule is based on the analytic hierarchy process and combined with the method of fuzzy mathematics to fuzzy quantify the weights to obtain a quantitative reference value. However, we can also see from the analysis of comprehensive evaluation methods that a single evaluation method does not have absolute advantages, and all have certain advantages and disadvantages. Therefore, the analytic hierarchy process and fuzzy comprehensive evaluation should be combined in the application to avoid the disadvantages of a single method as much as possible and improve the scientific and effectiveness of the evaluation results.

Evaluation results feedback and application

Feedback and application of evaluation results are the last important link in the student comprehensive quality evaluation system. Many scholars have pointed out that: for feedback on evaluation results, a reasonable evaluation feedback mechanism needs to be constructed; and for application of evaluation results, it has both internal and external uses within the school. Refer to Table 2.3.

Table 2.3 Feedback and application of evaluation results

Researcher	The main points
Chen Jie	Vocational colleges can also actively explore and develop software operating platforms related to student comprehensive quality evaluation during the evaluation process, so that feedback and evaluation results can be obtained as soon as possible.
Wu Liangzhou	In the feedback analysis process, the form of passive acceptance of evaluation results by students should be changed to fully reflect students' individual differences, focus on students' personality development, encourage students to self-evaluate, and promote students' self-thinking and self-improvement.
Wang Wei	Students prefer that the results of comprehensive quality evaluation should be presented in the form of a combination of materials and comments.
Yang Jun	The school should promptly feedback the evaluation results to students and parents, and parents will review the results and then feedback their review opinions to the school. This is conducive to guiding students' self-understanding, self-education, and self-management, conducive to parents and society gradually forming scientific concepts, and conducive to creating a family and social environment for students' development.

Table 2.3 (Continued)

Researcher	The main points
Wang Wenwen	1) Schools can use student evaluation results as an important basis for testing their own school running standards and student management; 2) Teachers can use evaluation results as an important reference for testing daily education, teaching and student management; 3) Students can use the evaluation results to conduct self-development Positioning, identifying gaps, and improving problems in a timely manner; 4) Employers can comprehensively understand graduates' study and life in school through the evaluation results, so as to accurately find graduates suitable for the unit.
Zhao Yue	The application of the results of students' comprehensive quality evaluation has the characteristics of comprehensiveness. 1) It can reflect the educational effectiveness of higher vocational colleges from one perspective. 2) It can strengthen students' behavior shaping and self-quality education. 3) Improving students' employment competitiveness and self-development and self-improvement after entering society will also play an important role.
Chen Guomin	The evaluation results are mainly provided for students' own use, and allow teachers to effectively supervise and guide students' continued development.
Zhou Kui, Li Chao & Zhu Cairong	Students should accurately understand themselves, discover their strengths, identify gaps and problems based on their own evaluation results, and continuously strengthen their strengths, make up for their shortcomings, and improve their comprehensive abilities through actions.

In short, Feedback and application of evaluation results refers to the purpose of timely feedback of evaluation results to students by the evaluation subject and reasonable application of the results to various institutions inside and outside the school to promote students' self-development and self-improvement.

Important factors affecting the comprehensive quality evaluation system

Subjective influencing factors

Personal expectations. Personal expectations affect comprehensive quality mainly in two aspects: First, personal expectations determine personal value orientation. According to motivation theory, people's conscious awareness and personal expectations often determine a person's value orientation to pursue a certain expected purpose; second, personal expectations also determine people's behavioral choices (Xia Chen, 2021). Some higher vocational students with high overall quality have high personal expectations for themselves and believe that they can go to well-known companies to display their talents and energy after graduation. However, reality will inevitably hit them hard and make them feel helpless. and uncertainty, resulting in an inferiority complex, and some even fail to recover from this (Cheng Yun, Feng Tao, and Wu Wensheng, 2012).

Quality basis. The comprehensive quality of students is affected by family environment, school environment, and social environment, but these are all external factors, and only internal factors can play a key role. Therefore, if college students themselves do not have good qualities, the role of all external factors can be ignored (Ma Xiao, 2015). The basic quality of students affects the further improvement of comprehensive quality. Students have differences in their innate quality foundation. For students with better knowledge, abilities, character, social relationships and other conditions, their higher quality foundation can bring more advantages to the improvement of their overall quality (Xia Chen, 2021). The quality of higher vocational students includes humanistic and professional qualities. Humanistic literacy cultivates students with good theoretical analysis, language expression, innovation, and social adaptability, especially the ability to adapt when encountering problems such as job changes or sustainable career development. This is also an

important manifestation of the comprehensive quality of higher vocational students. Professional quality is the regulator that controls and regulates all professional behaviors and activities and is also one of the important factors reflecting the comprehensive quality of higher vocational students (Sun Weiping and Guo Xinyi, 2012).

Personal awareness. According to Adams' fairness theory, whether a person can be motivated depends not only on what he gets, but also on whether what he gets is fair compared with others. Students not only care about their own gains and losses, but also care about the relationship with others' gains and losses. In the student evaluation process, if students think that they have been fairly evaluated, it will encourage students to make greater progress. On the contrary, if they think that they have not been fairly evaluated, they will have negative behaviors such as being passive and not working hard in study and scientific research (Xia Chen, 2021).

Objective influencing factors

Family training. The family education environment has a deep-rooted impact on the development of students' quality. Parents of some families only value students' academic performance but ignore the cultivation of students' ideological and moral character and psychological quality (Cheng Yun, Feng Tao and Wu Wensheng, 2012). Family education believes that the impact of parents and family environment on children is immeasurable. Although college students are already adults, their parents and other family members have less influence on their growth than underage students, but the influence of their families cannot be ignored (Xia Chen, 2021). Most contemporary college students were born in the new era of my country's reform and opening. They have relatively affluent family conditions, received a good and comprehensive education since childhood, and have high intelligence, strong cognitive abilities, and a wide range of interests. However, there are varying degrees of flaws and deficiencies in personality traits, self-care abilities, life goals and self-understanding. It is highlighted by being self-centered and emphasizing personal realization and personal value (Chen Wenjuan, 2016).

School training. The school education environment is most important to the cultivation of students' comprehensive professional skills. During school, the school environment plays a vital role in the quality development of students. Creating a relaxed and open learning and living environment is conducive to students being influenced by an excellent environment and conducive to the development of excellent qualities (Wang Jia, 2013). In the process of students receiving training from colleges and universities, teachers, teacher-student relationships, campus culture, evaluation mechanisms, etc. will become factors that affect the improvement of students' comprehensive quality (Xia Chen, 2021). In high school, students only focus on scores and not skills. After entering higher vocational colleges, students must supplement the study of basic theoretical knowledge and learn practical skills, which makes students feel overwhelmed (Cheng Yun, Feng Tao and Wu Wensheng, 2012).

In the process of improving students' comprehensive quality, the exemplary role played by teachers' quality is particularly important. In the process of teaching activities, an excellent teacher, in addition to imparting knowledge, can also teach by words and deeds, and influence students' thoughts and thinking through classroom and daily life (Ma Xiao, 2015). In university life, only teachers with high quality levels can tap into the quality potential of college students, integrate quality education into the curriculum, and teach it in a way that is easy for students to accept (Wang Jia, 2013). The characteristics of students in higher vocational colleges are that most of them have weak cultural foundation, serious rebellious psychology, active thinking, and strong practical ability. This requires teachers in higher vocational colleges to assume the roles of "teachers", "masters" and "masters". Friend" and many other roles. In terms of teaching theoretical knowledge, one should be a "teacher"; teachers are with students every day after school, and teachers have the most direct and profound impact on students (Gao Wei, 2014). In the process of teaching activities, teachers, in addition to imparting knowledge, should also directly and indirectly influence students, including political outlook, life values, moral values, ideals and aspirations, character, life attitude, thinking tendencies, thinking methods, etc. (Chen Wenjuan, 2016).

Social environment. The social and cultural atmosphere essentially represents the value orientation. Bad social trends, such as hedonism and other bad thoughts, impact students' ideas and concepts, affect their behavior, and become factors that affect the improvement of students' comprehensive quality (Xia Chen, 2021). The social environment has a significant impact on the improvement of students' practical skills and employment. Many students' studies in school and do not pay attention to society's demand for talents and do not actively participate in social practice. It is difficult to connect with the needs of enterprises after graduation (Cheng Yun, Feng Tao and Wu Wensheng, 2012). Students are deeply affected by the social environment, and the social environment will affect college students' morality, value orientation, and outlook on life (Ma Xiao, 2015). Throughout the process of socio-economic transformation, negative thoughts such as hedonism and profit-seeking have appeared in the larger social environment. These factors have inevitably affected the comprehensive quality cultivation of higher vocational students (Gao Wei, 2014). The needs of society will have a direct impact on students' quality development during school. Therefore, when schools are employment-oriented, they must focus on cultivating students' abilities and qualities to adapt to employment (Wang Jia, 2013).

Concepts of Strategy

Meaning of Strategy

By searching the literature, we found that the academic community has a relatively clear definition of the word strategy.

In European and American countries, there are abundant research results on strategies. Alfred Chandler (1962) defined strategy as: a method of designing the long-term goals and decisions of an organization, as well as the actions and asset allocation required to achieve these goals. Donald L. Bates and David I. Eldredge (1968): Strategy can be defined as the guiding philosophy for an organization to invest its resources and achieve its goals. It provides constraints for the organization to make necessary action decisions. and restrictions. James Brian Quinn (1976) believes

that strategy is a pattern or plan that integrates the organization's main purpose, policy, and a series of activities into a whole. A well-formulated strategy helps allocate and arrange the organization's resources into a unique and dynamic posture based on the organization's internal capabilities and weaknesses, anticipated changes in the environment, and the unexpected moves of smart (competitors) competitors. Lloyd I. Byars (2005) believes that strategy includes the formulation and evaluation of various programs to achieve organizational goals and missions, and the final selection of programs to be implemented. Gary Hamel (1995) believes that strategy is revolution, and one must have a revolutionary spirit, formulate revolutionary strategies, and dare to stand out from the old and bring forth the new.

In China, experts and scholars have conducted detailed analysis of the word strategy in modern Chinese dictionaries, books, and magazines. The word strategy was originally a term in military science. Its original meaning was planning, and guidance based on the analysis and judgment of the overall situation of the war. Later it evolved to generally refer to major, overall plans that influence victory or defeat (Zhang Yongsheng and Wan Weiwu, 2003). "Modern Chinese Dictionary (6th Edition)" (2012) defines strategy: "Strategy" when used as a noun means "the course of action and method of struggle formulated according to the development of the situation." Strategy means strategy, plan, method, and strategy. Design strategy refers to plans and behavioral guidelines for obtaining competitive advantages through design (Wu Bibo, 2013). Zhang Zhe (2017) mentioned that the word strategy appears frequently in management. In management, strategy is defined as the determination of the company's basic long-term goals and objectives, as well as a series of actions and resource allocation taken to achieve the goals. Chen Wenjie (2020) mentioned that strategies mainly refer to the principles and specific methods of refining unit reading teaching objectives, enriching unit reading teaching content, and using teaching methods.

Meanwhile, to enhance the comprehensibility of policy definitions, the researchers have compiled a concise summary of policy definitions as presented in Table 2.4.

Table 2.4 Summary of Strategy

Researcher	Definition of Strategy
Chandler, A.D	A method of designing the long-term goals and decisions of an organization, and the actions and allocation of assets needed to achieve these goals.
Donald L.Bates &David l.Eldredge	The guiding philosophy by which an organization invests its resources and achieves its goals.
James Brian Quinn	A model or plan that integrates an organization's main purpose, policies, and a series of activities into a whole.
Lloyd l.Byars	Development and evaluation of various options to achieve organizational goals and mission.
Gary Hamel	Strategy is revolution, and we must have a revolutionary spirit, formulate revolutionary strategies, dare to be different and innovative, and introduce the new.
Zhang Yongsheng & Wan Weiwu	Generally, refers to a major, overall plan that affects victory or defeat.
Modern Chinese Dictionary (6th Edition)	"Strategy" when used as a noun means "a course of action and method of struggle formulated according to the development of the situation."
Wu Bibo	Strategy means plan, approach, and ruse.
Zhang Zhe	Strategy is defined in management as the determination of an enterprise's basic long-term goals and objectives.
Chen Wenjie	The principles and specific methods of refining unit reading teaching objectives, enriching unit reading teaching content, and using teaching methods.

According to Table 2.4, after comprehensive analysis, researchers believe that strategy means setting goals and formulating ways to achieve goals, which has both strategic and tactical implications. Design strategy is an important organic part of organizational strategy. It is the long-term planning and method for design activities made by an organization according to its own situation, and it is the basis and necessary guarantee for guiding design innovation reasonably and enhancing market

competitiveness, to establish a brand. The application of design strategy is a process of interaction between design and business strategy, which makes business strategy provide background for design in a systematic way.

strategy theory

Abroad, there are two major schools of thought on strategy, the industry structure resource school, and the internal resource school. The main viewpoints of strategic theory: 1. Ansoff's (1965) strategic theoretical viewpoint of resource allocation. Ansoff left industry and entered academia in 1963. Due to his remarkable achievements, he was known as the "Father of Corporate Strategy". Its core theory is to build the basic framework of strategic management theory with the three factors of environment, strategy, and organization as pillars. 2. Porter (1980) Competitive Strategy Perspective. Michael Porter is a professor at Harvard Business School in the United States and is currently the world's highest authority on competitive strategy. He believes that strategy is ultimately about finding above-average returns. Porter believes that there are no more than five factors that enterprises must consider in competition, and they should focus on research: 1) The entry of new competitors (when new competitors join, enterprises must make a competitive response, because the profits of the market The cake will be scraped). 2) Threat of substitutes. 3) Buyer's bargaining power (increase or decrease in profits). 4) Bargaining power of suppliers (affecting costs and profits). 5) The competitiveness of existing competitors (marketing, advertising, etc. strategies). The combined force of these five forces is the competitiveness and profitability of the enterprise. 3. Andrews' (1965) goal strategy theory. He believes that the goal is the first, and the goal of the enterprise determines almost everything.

In China, Wu Yongyi (2001) analyzed and summarized the research situation of domestic strategies from the descriptive and interventional aspects of strategies and expressed his own views on the classification standards and classification systems of strategies. He not only objectively analyzed Regarding the problems existing in domestic strategy research, but subsequent researchers have also pointed out the steps of strategy research and raised many questions worth thinking about, which

have important guiding significance and reference for domestic strategy research. Qian Yulian (2004) summarized the research situation of domestic strategy, looked forward to the development of this field, and pointed out the research prospects and basic framework of strategy. In addition, she also proposed a macro strategy system, and a micro strategy system based on the summary of previous strategy classification issues and based on reality. The former includes concepts, management and learning, and the latter includes knowledge strategies and skill strategies.

To have a more intuitive understanding of the theories of strategy research, the researchers summarized the theories of strategy, as shown in Table 2.5.

Table 2.5 Summary of strategy theory

Researcher	Strategy Theory
Ansoff	Theoretical Perspectives on Resource Allocation Strategy
Porter	competitive strategy perspective
Andrews	Goal strategy theory perspective
Wu Yongyi	Descriptive and interventional perspectives on strategy
Qian Yulian	Macro strategy system and micro strategy system

As can be seen from Table 2.5, foreign research theories on strategy were developed earlier, widely used in the world, and recognized by more scholars. Based on the above discussion, the researchers believe that the strategy theory focuses on the resource allocation strategy theory, the competitive strategy view and the goal strategy theory.

Characteristics and Importance of Strategy

Characteristics of the strategy

A good strategy should have good characteristics.

Zhang Zhe (2017) mentioned that a good strategy should include: 1) Having long-term goals. Strategy must serve goals. The Concise Oxford Dictionary explains that strategy is a plan designed to achieve a specific long-term goal. 2) Leverage

capabilities and resources. To achieve its ambitions, its resources such as manpower, technology, facilities, and others must be properly deployed. Strategy determines how to use them. 3) Creating a strategy is a comprehensive process that is adaptability 4) Strategy is adaptable and dynamic. Perhaps the most important characteristic of strategy is that it is about the future. The environment in which strategies are executed is constantly changing. 5) War is selective. Strategy is not a list of things to do. It's not a question of doing more or trying harder.

Chen Wenjie (2020) mentioned that a good strategy should have several characteristics: 1) Synchronicity. A strategic decision must first keep pace with reality. If it lags reality, new decisions need to be made. 2) Forward-looking. Just being in sync with the actual situation cannot be considered a good strategic decision. It must be forward-thinking. 3) Selectivity. Before a decision is made, there must be several sets of options to choose from, from which the optimal option can be selected 4) Implement ability. A strategy is not a piece of paper if it cannot be implemented into specific strategies, management systems, and risks can be avoided. 5) Adaptability. During the implementation of a strategy, various unexpected situations will be encountered, so when formulating a strategy, contingency measures must be prepared in advance and prepared for rainy days, so that you can remain calm in the face of changes and minimize risks.

Wang Wenwen (2020) mentioned that strategy has the following Characteristics: 1) Synchronicity; 2) Adaptability; 3) Selectivity; 4) Foresight; 5) Unity.

Xia Chen (2021) mentioned that the main characteristics of strategy are: synchronicity, directionality, adaptability, foresight, and adaptability.

So, what are the characteristics of a good strategy? Refer to Table 2.6

Table 2.6 The results of the synthesis of Strategy characteristics

Strategy characteristics	Author				Total
	Zhang Zhe (2017)	Chen Wenjie (2020)	Wang Wenwen (2020)	Xia Chen (2021)	
Synchronicity		√	√	√	3
Foresight		√	√	√	3
Adaptability	√	√	√		3
Selectivity	√	√	√		3
Adaptability	√		√	√	3

According to Table 2.6, researchers analyzed and synthesized relevant studies on strategy characteristics, including Zhang (2014); Chen (2016); Wang (2023); Xia (2017). Researchers use these criteria to consider corresponding characteristics. At the same time, by selecting features with a frequency of 3 or more. Five characteristics can be synthesized: 1) synchronicity; 2) foresight; 3) adaptability; 4) selectivity, and 5) adaptability.

Importance of strategy

Developing an effective strategy is crucial for any organization. It can help enterprises or government departments establish direction, analyze resources and plan.

Zhang Chao (2018) believes that the importance of strategy should include: 1) Determining the direction. Developing an effective strategy can help organizations determine direction and goals to ensure that all courses of action move toward preset goals. This helps organizations avoid blindly following market trends or being forced to accept unsuitable initiatives. 2) Allocate resources. The development of a strategy also helps organizations allocate resources to ensure they are used for what

matters most. This helps organizations use resources more efficiently and achieve better results. 3) Predict the results. Developing a strategy requires rigorous analysis and forecasting. This helps organizations predict outcomes, informs them of better decisions, and helps them make more informed decisions. 4) Win the competition. Developing effective strategies can help organizations win the competition. It helps organizations find growth points, avoid competitors' advantages, and stay on top of the latest trends.

In short, researchers believe that the importance of strategy to a field cannot be underestimated; any major, relatively independent field that requires high-level planning and decision-making and needs to take care of various aspects and stages is the overall strategy. The overall nature is reflected in space. The entire world, a country, a theater, and an independent strategic direction can all be the overall strategic situation. The overall nature is also reflected in time, running through all stages and the entire process of guiding war preparation and implementation.

Key criteria for considering Strategy

From the perspective of the strategic management process, Yu Yaping (2020) believes that various factors affecting strategy can be explored from the aspects of strategy formulation, strategy promotion, leadership, system support, resource support and environment. 1) Strategy formulation factors. Some scholars believe that the participation of personnel at all levels can increase understanding and recognition of the strategy, thereby reducing resistance in implementation. 2) Strategic publicity factors. It is not only necessary to explain and communicate the strategy to internal personnel, and carry out relevant training and mobilization, but also to preach the corporate strategy to important external people or organizations related to strategy implementation to gain their support. 3) Leadership factors. Leaders need to be able to provide practical and ongoing support for implementation. 4) System support factors. The key to implementing strategy is to treat strategy as rules and regulations, that is, strategy must be institutionalized. 5) Resource support factors. A strategy without corresponding resources to follow it

cannot achieve results. 6) Environmental factors. During the strategy formulation stage, changes in the environment must be fully predicted.

Chen Wenjie (2020) feels that the influencing factors of strategy can be analyzed from several aspects: 1) Organizational structure. Changes in strategy require corresponding changes in the organizational structure. The leading nature of strategy and the lagging nature of organizational structure 2) Resource allocation. Resource allocation, especially how to effectively and rationally allocate human resources to meet the needs of strategy implementation should attract sufficient attention. 3) Culture. The successful implementation of strategy is based on the shared beliefs and understanding of organizational members. Culture not only affects the analytical methods used by the organization, but also affects the prevailing way of thinking in the organization, thus affecting the implementation process of strategy. 4) Leadership. The four elements of leadership are power, basic understanding of people, inspiration to subordinates, and the organizational atmosphere created by leaders. Power is a necessary condition that entrepreneurs must possess. 5) Changes in internal and external environments. The internal and external environment is constantly changing, and some unpredictability of environmental changes will cause inconsistencies between the company's strategic intentions and strategic actions. Therefore, the strategy implementation process requires the strategy to make corresponding adjustments as the environment changes.

Factors affecting strategy can include organizational structure, resource allocation, cultural support, leadership, environment, etc. These factors will influence the construction and implementation of strategy.

Strategy Formulation

How to strategize

How to formulate strategies and methods are also important. Henry Mintzberg (1987) proposed a five-point organizational strategy concept, which he called the 5P strategy. 1) Plan. Plan is an action plan made in advance to deal with various internal and external changes, even unforeseen changes. Plans can help an organization advance its strategy in an orderly manner and achieve strategic goals. The design of

the plan follows three principles: long-termism and futurism, purposefulness, and advance/advance development. Method: First, PEST analysis, SWOT analysis and brainstorming can help discover future opportunities; second, use methods such as change management (Change Management) and project management (Project Management) to manage the designed plan and ultimately achieve the goal. 2) Ploy. Ploy can be understood as behaviors, methods or specific strategies that can give an organization a competitive advantage (perhaps in some specific scenarios or circumstances). The strategy may be the use of suitable promotional methods (tools), features within the product or service, etc. 3) Pattern. Pattern refers to a set of inertia formed by an organization during its development process. It can be the organization's culture, behavior, principles, way of thinking, product characteristics, process characteristics, etc. Method: Core Competencies Model. 4) Position. Position usually refers to the overall position of the enterprise in the business environment (standing on the outside). By conducting a comprehensive analysis of the environment and the opportunities it presents, organizations can continue to drive competitive advantage through key strategic decisions and plans. Methods: Value Chain Analysis, Porter's Diamond Model, Porter's Five Forces, etc. Generally, the analysis methods for positioning and planning can be used in common. 5) Point of view/Perspective. Perspective analysis generally involves looking at the organization's values and views of the external objective world from within the organization. These views originate from the organization's culture (way of thinking) and its values and mission. Positioning is to stand outside the organization and see how the external environment will affect the organization.

In short, 5P of Strategy is a method of defining/designing strategy, with the purpose of conceiving and formulating outstanding strategies for organizations from five perspectives. The 5Ps respectively correspond to: Plan, Strategy, Pattern of behavior, Position in respect to others, and Perspective.

Steps to developing a strategy

Developing an effective strategy is equally important, so what steps go into developing a strategy? Ma Xiao (2015) mentioned that there are seven steps that can

guide how to develop effective strategies. 1) Define goals. First, you need to clarify the default goals of all strategies. This helps the strategy team stay focused on goals throughout the development process. After defining the goal, all strategies need to be centered around this goal. 2) Conduct a SWOT analysis. SWOT analysis can help organizations understand the internal and external environment. The analysis includes analysis of the relationship to market trends, competitors, industry design, and internal elements supporting the strategy. SWOT analysis can help the strategy development team better understand the environmental changes that the strategy will adapt to when formulating plans. 3) Identify your target audience. You need to identify the target audience for your strategy and consider how to deliver it to them in an appropriate way. A good and effective communication mechanism should be established during the strategy formulation process. 4) Make plans and action plans. Develop detailed and feasible plans and action plans. This step can be developed by the development team together with the strategy support team to ensure that all options are feasible and meet the expected results. 5) Identify resources. Understand all the resources required by the strategy, including time, money, manpower, etc. Understanding these resources can help organizations develop feasible plans and courses of action and translate them into operational guidance. 6) Establish a phased schedule. Based on the time, resources, and budget for strategy formulation, establish a detailed phased schedule to follow up on the specific implementation of the strategy. This requires tracking the progress of the strategy. 7) Evaluate strategies regularly. Regularly evaluating your strategy is key to determining whether adjustments should be made. The strategy team should monitor performance metrics, market developments, and competitor dynamics to make decisions about adjusting and revising strategies.

In summary, strategy development is crucial for any organization. It can help organizations determine direction, allocate resources, predict results, win competition, and more. Developing an effective strategy requires conducting a SWOT analysis, clarifying the target audience, formulating plans and action plans, identifying resources, establishing a phased schedule, and regularly evaluating the strategy. As

the technological and economic environment develops, the way strategy is formulated is constantly changing, such as data collection and analysis, interdisciplinary collaboration, and automated processes.

Concepts of higher vocational college

The concept of higher vocational colleges

In China, many scholars have given different views on what higher vocational colleges are.

Shan Zuomin (2014) mentioned that “higher vocational school” is an abbreviation, and the standard expression should be “higher vocational school”. It is synonymous or synonymuous with the three terms “higher vocational college”, “higher vocational college” and “higher vocational and technical college” in my country's education system (basically can be used interchangeably and is the link between China's higher education system and vocational education system). The educational institutions created by the intersection are generally referred to as “higher vocational colleges” or “higher vocational colleges” in mainland my country.

Vocational colleges are the abbreviation of ordinary colleges and universities that implement higher vocational education. The enrollment targets are ordinary high school graduates and students with academic qualifications equivalent to high school. The schooling lasts for three years and is awarded a junior college degree (Wang Jing, 2013). Vocational colleges are vocational and technical education aimed at cultivating practical and skill-based talents with certain theoretical knowledge and strong practical ability, oriented to the grassroots level, oriented to production, oriented to front-line professional positions in service and management. The higher stage of education (Yu Yaping, 2020).

Higher Vocational College is the abbreviation of Higher Vocational College. At the end of the 20th century, the Ministry of Education required that the names of full-time colleges and universities at the junior college level should be standardized. Vocational colleges such as normal colleges, medicine, and public security colleges should be named “college colleges” instead of normal colleges, non-medical

colleges, and non-public security colleges. The unified suffix of the school is "vocational and technical college" or "vocational college". (He Jinjin, 2018). Higher vocational schools also generally called higher vocational colleges, or higher vocational colleges for short, have the dual attributes of vocational education and higher education. Vocational colleges are a type of school that improve students' vocational capabilities and promote students' employment through school-enterprise cooperation, work-study integration, etc. (Zhang Huamin, 2022).

Higher vocational education refers to a category of higher education that undertakes vocational higher education tasks and aims to cultivate technical senior professionals. It is a specific type of education with strong professionalism and application in higher education (Pan Maoyuan and Wang Weilian, 2017). Higher vocational colleges refer to independent higher vocational colleges that mainly recruit full-time high school graduates and technical secondary school graduates and aim to cultivate high-skilled applied talents (Yin Lei, 2018). Vocational colleges usually refer to the higher vocational colleges in my country that undertake higher vocational education after high school (general high school education and secondary vocational education), including public and private higher vocational colleges, junior college-level higher vocational colleges and undergraduate-level higher vocational colleges. Vocational colleges (Shao Jiandong, 2020).

Vocational colleges refer to the highest-level vocational education colleges (Xu Lishuang, 2016). The Chinese Education Encyclopedia (2012) defines higher vocational colleges as "higher vocational education institutions that cultivate advanced practical and applied talents. It is a higher-level school in vocational and technical education institutions and recruit's graduates from secondary vocational and technical schools. Ordinary high school graduates and intermediate technical workers with corresponding educational levels and practical experience."

Level 2	ISCEDO	Preschool education stage
	ISCED1	Primary education stage (equivalent to primary school)
Level 2	ISCED2	Junior high school education stage
	ISCED3	High school education stage (including A, B, C, 3 categories)
	ISCED4	Non-tertiary education after high school (including various non-academic vocational and technical training)
Level 3	ISCED5B	College associate degree, undergraduate degree, and various master's degrees Practical/technical/vocational special professional courses (equivalent to higher vocational education)
	ISCED5A	College associate degree, undergraduate degree, and various master's degrees for theoretical foundation/research preparation/entering courses requiring high-precision technical majors
	ISCED6	Leading to higher research qualifications (PhD component)

Figure 2.3 International Standard Classification of Education (ISCED 1997)

(Source: Xu Lishuang, 213)

In short, “Higher vocational colleges” refer to higher vocational education levels and levels of colleges and universities that award junior college and undergraduate degrees. Judging from the name, it includes all higher vocational and technical colleges, higher vocational colleges, and colleges and universities that take higher vocational education as the goal of talent training.

Characteristics of higher vocational colleges

Vocational colleges are education and training institutions that cultivate highly skilled operational talents. Their training objectives, training methods, evaluation systems, and development models are all different from ordinary colleges and universities (Bao Kunpeng, 2013). As a special type of institution, higher vocational colleges have unique attributes: 1) Application-oriented talent training. The training goal of higher vocational colleges is to be the front-line applied professionals in the development of economic, social, and cultural undertakings; 2) Serve the local nature of development. Higher vocational colleges are all local colleges and universities, mainly serving the development of the local economy, society, and

cultural undertakings; 3) Rapid curriculum updates. To adapt to the development and changes of economic, social, and cultural undertakings, higher vocational colleges promptly adjust their matching training objectives or professional construction; 4) Practice of teaching links. Higher vocational colleges have developed two interoperable and integrated systems of theoretical teaching and practical teaching under the overall curriculum teaching, and the practical courses form a self-contained system; 5) Dual certificates for academic evaluation. What is widely recognized now is to enable students to obtain academic certificates and vocational qualification certificates or technical level certificates (Song Mingjiang, 2015). In terms of individual training, it is necessary to not only improve students' vocational skills to prepare for employment, but also to cultivate students' professional sentiments and attitudes; in terms of serving the society, it is necessary to meet the needs of social and economic development. Guided by work tasks, we will effectively improve students' production practice ability and job adaptability. In terms of the training model, more emphasis is placed on the alternation of work and learning and the integration of industry and education, that is, the collaboration between students, teachers, and corporate masters, and the ability to closely cooperate to deal with problems in the production practice process (Zhou Dengchao, 2013).

Higher vocational education has distinctive vocational, technical, local, and industry characteristics, which requires higher vocational education to be closely integrated with the actual social development, update teaching content in a timely manner, and strengthen practical teaching (Li Chunlin, 2018). Zhang Rui and Rongtian (2019) mentioned that the teaching methods and methods in higher vocational colleges focus on practical teaching. In the teaching work of ordinary undergraduate colleges, most of the time is spent on imparting theoretical knowledge. The teaching method is classroom teaching, and only a small amount of time is engaged in practical guidance; or organizing students in a period approaching graduation. Engaging in internship activities is also a common teaching method in traditional higher education in my country. Vocational colleges do not advocate cramming classroom education. The teaching of theoretical knowledge only accounts for a

small proportion, generally necessary basic theories, and basic knowledge. It advocates focusing on practical education based on necessary theoretical education.

Higher vocational education does not focus on theoretical education and does not emphasize the systematic nature of knowledge but is ability-based and focuses on cultivating the necessary abilities to meet the needs of future work (Yang Deguang, 2019). 1. Adaptability. Adapting to social needs and cultivating application-oriented and operational talents is the fundamental task of vocational education. Vocational education must adapt to social needs and constantly change. 2. Practicality. It is emphasized that the goal of vocational education is to cultivate various application-oriented and operational talents, so practicality is an important feature of its courses. 3. Sociality. It is emphasized that only by taking root in various occupational fields of society and forming close cooperative relationships with enterprises can vocational education be successfully run. 4. Popularity. Vocational education has the inherent characteristic of serving or facing most groups in society (Xu Guoqing, 2017).

In short, higher vocational colleges have distinctive characteristics such as practicality, adaptability, locality, and industry. Their training objectives, training methods, evaluation systems, and development models are all different from ordinary universities.

Concepts of higher vocational college students

The concept of students in higher vocational colleges

Vocational students refer to the group of students studying theory and professional technology in higher vocational colleges. Compared with undergraduates, higher vocational students have stronger practical abilities and faster improvement in professional action abilities, which is directly related to the long-term integrated education of industry, academia, and research in higher vocational colleges (Ji Xinhao, 2019). Ma Xinyue (2021) mentioned that the research subjects of this study are higher vocational college students who have entered the three-year junior college level through single examination and single enrollment, general college

entrance examination, secondary and higher vocational education, and independent enrollment. Higher vocational education, that is, higher vocational school, is the higher stage of vocational and technical education and an indispensable part of my country's higher education stage. The higher vocational students in this study are students from regular colleges and universities receiving full-time education at the junior college (junior college) level who were admitted through the unified national admissions examination (Zhu Su, 2017).

Vocational college students refer to junior college students who are receiving higher vocational education and have obvious employment advantages over undergraduates. Higher vocational colleges have the main goal of cultivating technical talents. They are a high-level new form of education that are advanced, vocational, and educational (Feng Jiaxue, 2022). Zhang Hang (2022) believes that regardless of the composition of the students and whether the level of study is undergraduate or junior college, if they are admitted to higher vocational colleges to carry out academic education studies, they are the "higher vocational college students" discussed in this study. ". Zhang Maobo (2019) mentioned that this article considers the research object and defines this concept as specifically referring to full-time three-year students who are uniformly recruited from ordinary high school, secondary vocational school graduates or those with equivalent academic qualifications who take the college entrance examination.

In short, Higher vocational college students refer to the group of students studying theory and professional technology in higher vocational colleges. It specifically refers to full-time second-, third-, and fifth-year students who have graduated from ordinary junior high schools, ordinary high schools, secondary vocational schools, or those with equivalent academic qualifications and participated in the unified recruitment of college entrance examinations and then entered higher vocational colleges.

Characteristics of students in higher vocational colleges

To summarize the characteristics of higher vocational students, the following are the specific characteristics:

1. The student structure is complex. Compared with the student sources of ordinary colleges and universities, the student source structure of higher vocational colleges is very complex. The students at higher vocational colleges include both ordinary high school graduates and technical secondary school graduates, as well as junior high school graduates with a five-year consistent system. At the same time, judging from the admission scores of higher vocational colleges, the level of students in higher vocational education is relatively low, and the college entrance examination admission to higher vocational colleges is the last level of admission to higher education (Mi Yuan, 2013). The quality of students is not high. In higher vocational colleges, the quality of students is generally low. Most of the students in higher vocational colleges are composed of students who failed the college entrance examination, or dropped out of school, as well as some students with poor foundation (Ma Yingtai, 2021). The quality of students is poor. Vocational colleges belong to the junior college batch. Most students have low college entrance examination scores, low cultural foundation, insufficient learning ability and motivation, and unclear learning purposes. Most students do not understand their majors and future career plans and have no idea about their prospects. Relatively confused (Gao Wei, 2014).

2. Weak learning awareness. In higher vocational colleges, most students study in a disorganized manner. Due to factors such as family environment and living habits, higher vocational students have a weak learning awareness and do not have clear life goals and plans. Students attend classes Also unable to fully concentrate (Ma Yingtai, 2021). The learning goals are unclear, and the learning motivation is insufficient. Since higher vocational colleges are a new thing that emerged in our country in the 1990s. They are neither well-known nor recognized by society. Parents of students are very concerned about the severe employment trends and pressures faced by their children after graduation. worries (Xu Jing, 2014). Some students have poor learning ability, weak basic knowledge, do not seek deep understanding, and are playful and lazy mobile phone users. These students often have weak organizational awareness, insufficient time awareness, unipositive learning attitude,

weak desire to learn, low self-requirements, and generally lack interest in learning. and Dynamic (Feng Cuiqin, 2019).

3. Strong hands-on (practical) ability. The goal of higher vocational education is to cultivate new talents for grassroots skilled positions. The school naturally places practical teaching in an important position. Although students in higher vocational colleges have gaps in learning ability and cultural foundation, they have developed their problem-solving and practical skills through practical training and various practical activities in school. Hands-on innovation ability (Mi Yuan, 2013). Active thinking and strong operational ability. Compared with ordinary college students, although the cultural foundation of higher vocational college students is relatively poor, they often show more active thinking, stronger hands-on ability, and have a clear understanding of the fierce competition in the talent market and the ruthless "survival of the fittest" system. I know that I am eager to find a job and become successful, but I often feel a lot of pressure on my shoulders (Xu Jing, 2014). Strong practical ability. After entering higher vocational colleges, they have more opportunities for practical activities. They often go out to sketch, participate in large-scale performances, or communicate with foreign countries, etc., so they have strong social practice abilities (Song Yaxin, 2015). Higher vocational students have active thinking and strong practical ability, and like to take professional training courses (Wang Zhidian, 2019)

4. Psychological factors are complex. Students in higher vocational colleges, because this stage is their adolescence, are relatively high-spirited and have high expectations for society, but they are very confused in terms of employment, and some even have serious rebellious psychology (Ma Yingtai, 2021). lack of confidence. In their previous studies, higher vocational students have experienced many failures and blows in their performance and have a weak cognitive outlook and lack of confidence (Feng Cuiqin, 2019). Lack of self-confidence. Students in higher vocational schools like to express themselves and hope that their parents and teachers will see their strengths. However, because most of them have experienced failure in the college entrance examination, it is easy to doubt their abilities (Wang Zhidian, 2019).

Strong inferiority complex. Many students have no choice but to enter higher vocational colleges. They often express a strong sense of loss, often have an inferiority complex about their studies and life and feel confused about their future and future benefits (Xu Jing, 2014). Low frustration capacity. When students in higher vocational colleges face ordinary college students, some students will have an inferiority complex and think that they are the only ones who enroll in vocational colleges because of their poor learning ability. Their self-confidence is seriously frustrated, and they have no confidence in doing things, which gradually leads to certain problems. Ideological pressure (Chen Xiang, 2018).

5. Poor self-restraint behavior. Some higher vocational colleges generally pay too much attention to students' learning skills, and overly underestimate ideological education, moral quality, and related legal knowledge. They believe that students' focus is learning, resulting in students lacking the ability to judge right from wrong and poor self-discipline (Chen Xiang, 2018). Strong self-awareness and blindness in thinking. Affected by the Internet culture, higher vocational students have strong self-awareness, weak teamwork, and insufficient ability to withstand setbacks; they have poor ability to distinguish right from wrong, often follow the crowd, have blind ideas, and are easily influenced by others (Feng Cuiqin, 2019). Organizational discipline is poor. Students enrolled in higher vocational colleges in recent years have poor academic performance in middle school and low interest in learning. They are mostly pampered by their parents and relatives at home, have never experienced setbacks, and have a strong sense of self. Disobedience to school management, the stricter the management, the stronger the rebellious psychology (Gao Wei, 2014). Unclear self-awareness. Some students who enter higher vocational colleges fail the college entrance examination, and there is a big gap between their ideals and reality. For these candidates, they admire higher institutions of higher education more and are more likely to have a sense of loss and inferiority. Moreover, society also has prejudices against higher vocational colleges, which makes these students even more confused and unable to correct their mentality. (Mi Yuan, 2013).

To sum up, the characteristics of higher vocational students are mainly concentrated in the complex student structure, weak students' learning awareness, strong hands-on and practical abilities, complex psychological problems, and poor self-discipline ability.

Related Research

Research in China

At present, China has achieved considerable results in theoretical research on the comprehensive quality of students, but there is relatively little research on the comprehensive quality of students in higher vocational colleges. The comprehensive quality evaluation system directly takes higher vocational students as the research object. There are not many studies on it.

Basic theoretical research on the comprehensive quality evaluation system for higher vocational students

Regarding the necessity of strengthening the research on the comprehensive quality evaluation system of higher vocational students, Ma Guangsong (2013) pointed out: Strengthening the comprehensive quality evaluation system of higher vocational students is that talent competition has put forward new requirements for the comprehensive quality of higher vocational students and is the core of higher vocational education itself. It is an urgent need for the development of higher vocational students. In terms of the principles that should be followed, Yuan Lanlan (2013) believes that the following points should be included: Emphasis on comprehensive quality evaluation and highlight professional quality evaluation; Strengthen the guiding role of evaluation, highlight active developmental evaluation, pay attention to the growth of higher vocational students, and highlight the dynamic process. Sexual evaluation is based on the common development of students and pays attention to the differential evaluation of students; in terms of evaluation content, Ma Guangsong (2013) believes that it should include three major parts: academic performance, basic qualities, and professional qualities.

Research on the deficiencies in the comprehensive quality evaluation system for higher vocational students

Domestic scholars believe that the current comprehensive quality evaluation system of higher vocational students in my country has deficiencies in evaluation concepts, methods, standards, effectiveness, etc. The more representative views are 1) Ma Guangsong (2013) believes that the current comprehensive quality evaluation system of higher vocational students in my country has There are problems such as lagging concepts, backward methods, and single standards; 2) Fu Juan (2016) believes that there are problems such as unclear evaluation purposes, unscientific evaluation methods, and insufficient evaluation effectiveness. 3)Wu Xiaofen (2023) mentioned that the problems of the comprehensive quality evaluation system of higher vocational students include: lagging evaluation concepts. Evaluators have the problem of focusing on results and not on process. The evaluation criteria are single. There is a problem of focusing on achievements and neglecting others. The evaluation criteria are relatively single, and a comprehensive dynamic tracking and evaluation mechanism has not yet been established. Poor evaluation method. Regarding the comprehensive quality evaluation method of higher vocational students, counselors and subject teachers usually use test score scoring methods, which construct a "one-size-fits-all" standard and do not reflect the individualization of evaluation.

Exploring ways to improve the scientific and effectiveness of the comprehensive quality evaluation system for higher vocational students.

After discussing the current comprehensive quality evaluation system of domestic higher vocational colleges, domestic scholars have put forward their own opinions on how to solve the problems existing in the current evaluation system. The more representative views include 1) Zhang Letian and Liu Dianhong (2013) proposed the construction principles and methods of the AHP evaluation system for the comprehensive quality of higher vocational students from the three levels of schools, students, and enterprises, and explored the connection between schools and social needs. To improve the effectiveness of the comprehensive quality evaluation system

for higher vocational students; 2) Huang Huiming (2014) introduced the TOPSIS method into the comprehensive quality evaluation system for higher vocational students; 3) Zhao Yue (2015) tried to construct a comprehensive quality evaluation system for higher vocational students from the factor analysis method, trying to improve the scientific nature of the comprehensive quality evaluation system for higher vocational students in terms of evaluation methods and means.

To sum up, although the current research on the comprehensive quality evaluation system of higher vocational students in my country has achieved a lot of results, it is still in the preliminary stage. In theory, there are problems such as single research method, insufficient research system, and insufficient research depth. In practice, there are problems such as lack of experience summary and insufficient experience transformation. These problems need to be solved urgently. Therefore, there is still a lot of research space on the issue of comprehensive quality evaluation system for students in higher vocational colleges.

Foreign Research

Vocational education evaluation has received great attention globally. Most countries have established strict student evaluation systems and systems. However, due to different national systems and different research perspectives, foreign experts and scholars have no unified evaluation of students' comprehensive quality standards. Among them, developed countries such as Germany, Australia, the United Kingdom, and Singapore focus on comprehensive quality evaluation on professional ability evaluation.

Student evaluations of German vocational education. Jiang Dayuan (2017) mentioned that German vocational education has profoundly affected global vocational education. The "Federal Vocational Education" legally stipulates the subject, content, methods, means of student evaluation, the composition of the examination committee, and qualification certification. The student evaluation system is relatively complete in terms of certificate issuance, examination propositions, etc. Deng Xiaoyan (2014) mentioned that most vocational education in Germany implements a "dual system" education model, using vocational positions

and vocational position groups as the design basis for professional directions and curriculum settings, using professional competency evaluation as the evaluation standard, and focusing on process. In accordance with the principle of orientation, the industry association shall establish an examination committee as the evaluation body. Germany's vocational qualification examination is the most representative way to evaluate vocational education students. There are two evaluation models: "operational skills-oriented" and "process-oriented". German vocational education unifies curriculum theory and practical operation standards and implements an evaluation method that mainly separates training and assessment. It is divided into intermediate examinations and graduation examinations. Trade union representatives are selected by industry associations, enterprises, and schools to implement unified enterprise graduation examinations. Flexibility, diversity, and organic integration have always been the characteristics of German vocational education evaluation.

Student evaluations of Australian vocational education. Australian vocational education implements the TAFE (Technical and Further Education) technical and continuing education evaluation model. On the one hand, it establishes a relatively complete vocational skills training system, focuses on practical ability, and uses it as an important basis for student evaluation standards; on the other hand, it emphasizes professional skills, Australian vocational education advocates mutual certification of vocational qualifications and academic certificates, and each level of vocational qualification certificates has unified "key competency standards", mainly through the ability to handle emergencies, information acquisition and processing capabilities, and the ability to apply basic theoretical knowledge. and other abilities to evaluate the level of key ability standards (Cai Yonghong and Xu Ying, 2018). Australian vocational education evaluation is constructed through close cooperation between vocational education and industry. Its student evaluation is mainly participated by schools, enterprises (industries), social groups, organizations, etc., reflecting the diversity of evaluation subjects. Australian vocational education evaluation mainly uses 12 standard evaluation methods, including observation, oral examination, on-site operation, third-party evaluation, certificate, interview,

self-evaluation, submission of case analysis report, work production, written answer sheet, video recording and others. Able to evaluate students scientifically, objectively, and comprehensively (Jin Jing, Dong Jingyi, 2012).

Student evaluations of British vocational education. Jin Jing and Dong Jingyi (2012) mentioned that British vocational education mainly implements the British Business and Technology Council (BTEC) model, which emphasizes taking vocational qualification certificates as the basis and ability standards as the guide and sets vocational qualification certificate standards in most industries. The evaluation standards focus on decomposing professional abilities and grade assessments, detailing and decomposing professional ability standards, and corresponding to professional grade assessments. Ofsted (2012) mentioned that students' assessment and evaluation results are divided into four levels: excellent, good, pass, and fail. British vocational education breaks down vocational abilities into key abilities and vocational skills, and clearly stipulates the assessment standards for key abilities and vocational skills at different vocational qualification levels. The main body of British vocational education evaluation consists of appraisal stations, assessors at all levels and supervisors. The organizational unit for the specific implementation of evaluation is the appraisal station, which includes schools, enterprises, and independent training centers. The British vocational education student evaluation method is mainly reflected in the National Vocational and Technical Certificate (NVQS) certification process, which is oriented to "learning by doing" and focuses on collecting evidence and judging whether the evidence meets operational standards, rather than just written paper-and-pencil assessment.

Student evaluations of vocational education in Singapore. Guo Runna et al. (2020) mentioned that Singapore mainly implements the student evaluation model under the "teaching factory" model. On the one hand, advanced teaching equipment and real corporate environments are introduced into schools and integrated with school teaching to form schools, training bases, and enterprises. A trinity of comprehensive teaching and evaluation models; on the other hand, in a real corporate learning or project development environment, students' learning abilities,

independent thinking abilities, team spirit, analysis and problem-solving abilities are comprehensively assessed. Singapore vocational education focuses on practical concepts, fully integrates practice and theory, and emphasizes real-world corporate learning and corporate project development. Only by allowing enterprises to participate in teaching can real enterprise evaluation be achieved in the teaching process.

Although there are differences in the evaluation of vocational education in the above four countries, these four countries all use vocational ability as the core criterion for assessment, focusing on students' vocational ability and practical ability. By comparing and analyzing the successful cases of the vocational education evaluation systems in the above four countries, the researchers believe that the Singapore vocational education student evaluation method is an important method worthy of reference.

In conclusion, the development of strategies for improving the comprehensive quality evaluation system for higher vocational colleges students is a multifaceted challenge that requires a comprehensive approach. The literature highlights the importance of evaluation subject (personnel), evaluation contents, evaluation method, and evaluation results feedback and application in achieving this goal. As the strategies for the comprehensive quality evaluation system of higher vocational college students continue to improve, these strategies are crucial to promoting the improvement of the comprehensive abilities of higher vocational college students while contributing to the long-term sustainability of higher vocational education. Integrating student comprehensive quality evaluation with teaching, management, and development considerations is critical to cultivating a flexible and adaptable comprehensive student evaluation system. Future research should focus on exploring the long-term effects of these strategies on student development and teacher development, as well as identifying best practices for implementing these strategies in different educational contexts.

Chapter 3

Research Methodology

Research objectives are the following aspects: 1) To study the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. 2) To provide strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. 3) To evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The researchers have the following procedures.

1. The Population / The sample Group
2. Research Instruments
3. Data Collection
4. Data Analysis

Step 1: Investigate the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

Step 2: Conduct expert interviews to explore the formulation of strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

Step 3: Evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

The research structure diagram is shown in Figure 3.1:

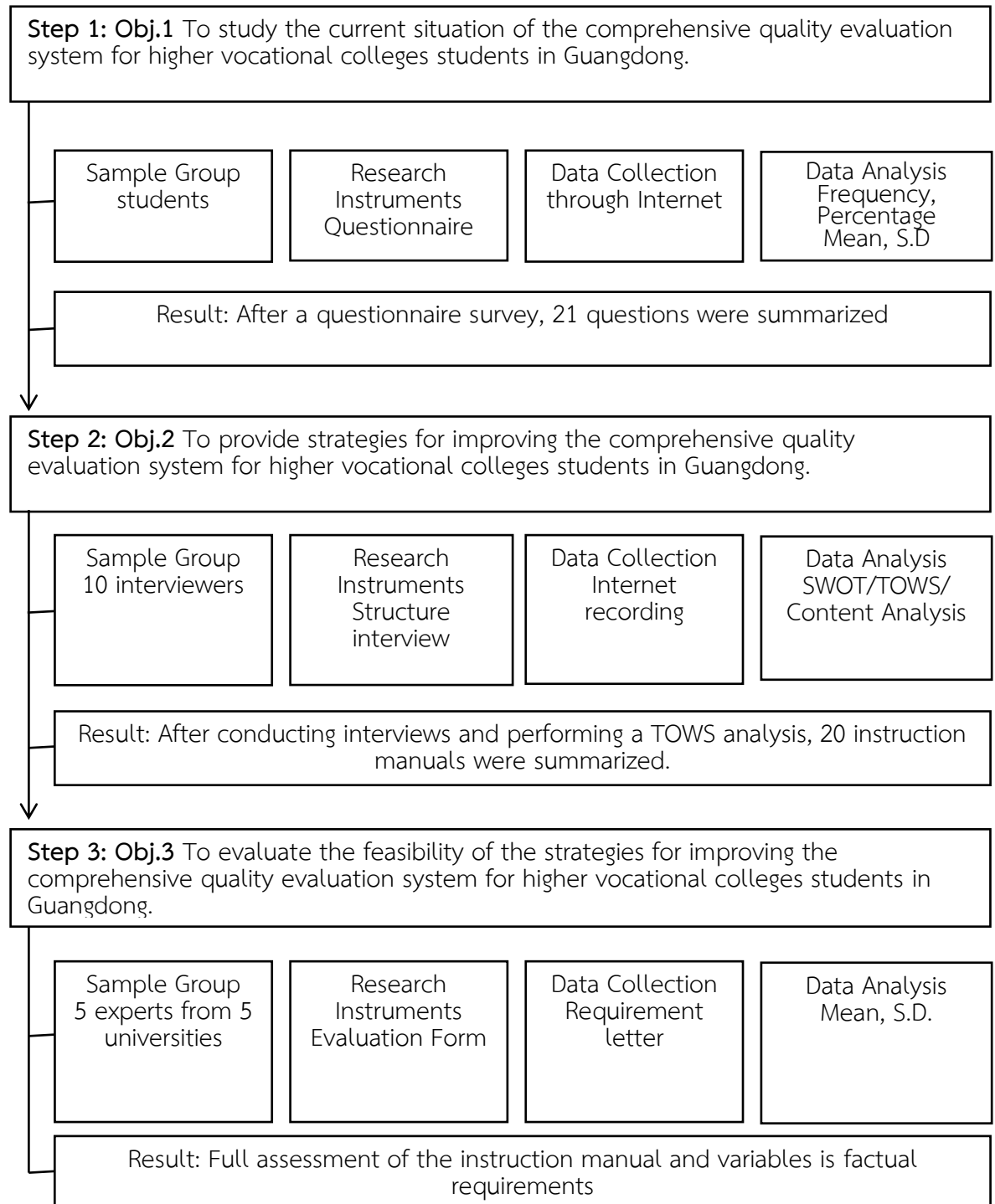


Figure 3.1 Summary of research methods and steps

The Population / Sample Group

The Population

The research population includes 70,800 people related of the Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in North of Guangdong. classified as:

1. 62,300 Students
2. 2,700 teachers
3. 580 administrators

The Sample group

According to Krejcie & Morgan 's sample table, the sample of this study is 382 students from five higher vocational colleges in north of Guangdong. These five higher vocational colleges are Heyuan Polytechnic, Guangdong Meizhou Polytechnic, Qingyuan Polytechnic, Guangdong Songshan Polytechnic, Luoding Polytechnic.

As show in Table 3.1:

Table 3.1 Lists of higher vocational colleges and sampling size

NO.	Higher Vocational Colleges	Population	Sample Group
1	Heyuan Polytechnic	13820	86
2	Guangdong Meizhou Polytechnic	6000	37
3	Qingyuan Polytechnic	11600	71
4	Guangdong Songshan Polytechnic	16700	102
5	Luoding Polytechnic	13820	86
Total		62300	382

Interview groups

Purposive sampling was used to select 5 teachers and 5 administrators from 5 higher vocational colleges as interview subjects.

1. Interview 5 teachers. Respondents must have: 1) associate professor or above; 2) working in higher vocational colleges for more than 10 years.

2. Interview 5 administrators. The interviewees were the person in charge of academic affairs and the person in charge of student affairs. Respondents must have: 1) Associate professor or above; 2) Have worked in the higher vocational colleges for more than 15 years and be familiar with the higher vocational colleges' development planning, daily teaching, student management and other specific situations.

As shown in Table 3.2:

Table 3.2 Lists of higher vocational College and interviewee size

NO.	Higher vocational colleges	Interviewees	
		Teachers	Administrators
1	Heyuan Polytechnic	1	1
2	Guangdong Meizhou Polytechnic	1	1
3	Qingyuan Polytechnic	1	1
4	Guangdong Songshan Polytechnic	1	1
5	Luoding Polytechnic	1	1
Total		5	5

Evaluation group

The evaluation of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The five experts are all from higher vocational colleges in Guangdong. The qualification requirements for experts are: 1) Engaged in higher vocational colleges education for more than 15 years; 2) Have rich experience in education management; 3) Associate professor or above.

As shown in Table 3.2:

Table 3.3 Lists of higher vocational colleges and expert size

NO.	Higher vocational colleges	Experts
1	Heyuan Polytechnic	1
2	Guangdong Meizhou Polytechnic	1
3	Qingyuan Polytechnic	1
4	Guangdong Songshan Polytechnic	1
5	Luoding Polytechnic	1
Total		5

Research Instruments

The research utilized research tools including questionnaires, interview guides, and a feasibility assessment form the development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong.

Questionnaire

The construction process of the questionnaire was as follows:

Step 1: Review and analyze the literature, concepts, and theories related to the comprehensive quality evaluation system of students in higher vocational colleges.

Step 2: Constructed a questionnaire for the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong based on the current situation.

Step 3: Test the objective consistency index (IOC) of the questionnaire by 5 experts. The objective consistency index (IOC) range is 0.5-1.00.

Step 4: Modified the questionnaire according to expert advice.

Step 5: The questionnaire will be sent to 30 students in Heyuan Polytechnic for pre-investigation. the reliability of the questionnaire will be obtained by Conbach's Alpha, and the coefficient should be between 0.41 and 1.

Step 6: A questionnaire survey was conducted among 382 students from 5 higher vocational colleges in north of Guangdong.

The data collection tool for Objective 1 involved a questionnaire survey designed to assess the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The questionnaire designed based on the current situation of comprehensive quality evaluation of students in higher vocational colleges is divided into 4 aspects: 1) evaluation subject(personnel), 2) evaluation method, 3) evaluation content, and 4) feedback and application of evaluation results.

The questionnaire was provided into 2 parts:

Part 1: Survey the personal information of the interviewed students, sorting by gender, grade, and major.

Part 2: Survey on the current status of the comprehensive quality evaluation system for students in higher vocational colleges in Guangdong, including 7 questions on the evaluation subject (personnel), 2 questions in the evaluation content, one of which contains 20 questions, 6 questions on the evaluation method, and 6 questions on the application of the evaluation results. There are 21 questions and 20 sub-questions in total.

The criteria for data interpretation based on five-point Likert's scale, as follows:

5. express that the level of comprehensive quality evaluation system for students in higher vocational colleges were at highest level

4 express that the level of comprehensive quality evaluation system for students in higher vocational colleges were at high level

3 express that the level of comprehensive quality evaluation system for students in higher vocational colleges were at medium level

2 express that the level of comprehensive quality evaluation system for students in higher vocational colleges were at low level

1 express that the level of comprehensive quality evaluation system for students in higher vocational colleges were at lowest level

And the data interpretation for average value based on Rensis Likert (1932).

The data interpretation are as follows:

4.50-5.00	Refer to	The highest level
3.50-4.49	Refer to	High level
2.50-3.49	Refer to	Moderate level
1.50-2.49	Refer to	Low level
1.00-1.49	Refer to	The lowest level

Structured interviews

For the data collection tool related to Objective 2, strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong were proposed. Building upon the analysis of interview data, this study systematically outlined strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. Additionally, interview content and a structured interview template were developed in conjunction with a questionnaire survey. Utilizing SWOT analysis, and adhering to a problem-oriented approach, deficiencies in four key areas 1) evaluation subject(personnel), 2) evaluation method, 3) evaluation content, and 4) feedback and application of evaluation results. Targeted guidance was provided to further improve the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

Evaluate the feasibility of strategy

For the data collection tool related to Objective 3, "To evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong," 5 experts from 5 higher vocational colleges students in north of Guangdong were invited to participate. The Likert scale method was employed to assess the feasibility of the proposed strategies.

The standards are as follows:

4.50-5.00	Refer to	The highest level
3.50-4.49	Refer to	High level
2.50-3.49	Refer to	Moderate level
1.50-2.49	Refer to	Low level
1.00-1.49	Refer to	The lowest level

Data Collection

Depending on the type of research instrument, the researchers designed various steps to collect data. Here are some examples:

Questionnaire

The data collection for objective 1: To study the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong:

Step 1: Obtain the Invitation Letter

The researcher first obtained an official letter of request from the Graduate School at Bansomdejchaopraya Rajabhat University, formally inviting the students from five higher vocational colleges in north of Guangdong to participate in the study.

Step 2: Contact the Student Administration Department

The researcher reached out to the student administration department of the five higher vocational colleges in north of Guangdong, explaining the purpose of the research and requesting their cooperation in distributing the questionnaires. The invitation letter was sent to each department for formal endorsement.

Step 3: Distribute the Questionnaire via Wenjuanxing

During the period of April 29-30, the researcher distributed the questionnaires through Wenjuanxing (an online survey platform). QR codes for the questionnaire were sent to student administration department of the five higher vocational colleges in north of Guangdong.

Step 4: Randomized Distribution of Questionnaires

The student administration department at each university randomly distributed the Wenjuanxing QR codes to the students. The number of questionnaires distributed at each university was calculated based on the proportion of students in the sample group from each institution.

Step 5: Collection of Responses

By 6:00 p.m. on April 30, a total of 382 completed questionnaires were received, achieving a 100% response rate.

Structured interviews

The data collection for objective 2: To provide strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong:

Step 1: Seek an Invitation Letter

The researcher first obtained an official letter of request from the Graduate School at Bansomdejchaopraya Rajabhat University. This letter invited teachers and administrators from five higher vocational colleges in north of Guangdong to participation in the structured interviews.

Step 2: Contact student administration department

On April 18, the researcher contacted the student administration department of the five higher vocational colleges, explaining the study and requesting assistance in identifying experts. The researcher asked for recommendations of experts who fit the interview criteria, including their names, contact information, and relevant details. The invitation letter was sent to the human resources departments for distribution.

Step 3: Initial Communication with Experts

On April 19, the researcher contacted the recommended experts by phone, introduced the research objectives and questions, and sent them the invitation letter. Additionally, a preliminary SWOT analysis related to the research was shared to provide context for the interviews.

Step 4: Conducting the Interviews

Between April 22 and 25, interviews were conducted using a variety of methods, including phone calls, online video meetings, and face-to-face discussions. During the interviews, the experts provided detailed feedback on the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students based on the provided the research objective.

Step 5: Data Organization and Analysis

Following the interviews, the researcher organized the responses and began the analysis. The interview data were carefully examined to inform the strategy development process and to ensure alignment with the study's objectives.

Evaluate the feasibility of the strategy

The data collection for objective 3: To evaluate the feasibility of the strategy for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong:

Step 1: Obtain the Invitation Letter

The researcher obtained an official letter of authorization from the Graduate School at Bansomdejchaopraya Rajabhat University to formally invite experts from five higher vocational colleges in north of Guangdong to participate in the feasibility evaluation of the strategies.

Step 2: Contact student administration department

On September 18, the researcher contacted the student administration department of the five higher vocational colleges, explaining the study and requesting assistance in recommending qualified experts. The researcher asked for details on the experts, including their names and contact information, and sent the invitation letter to the student administration department.

Step 3: Initial Communication with Experts

On September 19, the researcher contacted the recommended experts by phone, introduced the research objectives and shared the developed strategies for improving the comprehensive quality evaluation system for higher vocational colleges students. The invitation letter was also sent to the experts for their review.

Step 4: Conducting the Feasibility Evaluation

Between September 22 and 26, the researcher used the Wenjuanxing online questionnaire platform to distribute the feasibility evaluation form to the five experts. The student administration department of the five higher vocational colleges helped distribute the Wenjuanxing QR code, ensuring each expert could access and complete the questionnaire.

Step 5: Organizing and Analyzing Data

On September 26, after collecting 100% of the responses from the experts, the researcher organized the data to assess the feasibility of the proposed strategies. The results were then analyzed for further study.

Data Analysis

After verifying the completeness and effectiveness of the questionnaire, the researchers divided the data analysis into two steps: preliminary analysis and in-depth analysis.

Step 1: Demographic Information Analysis

Questionnaire Categorization: Analyze the data characteristics of various research variables and perform preliminary data analysis and basic statistical analysis for each variable using computer programs. The first step in the analysis was to examine the demographic data of the respondents, including gender, grade, and major.

Step 2: SWOT and TOWS Analysis

To evaluate the data collected from the interviews and questionnaires, the researcher employed both SWOT (Strengths, Weaknesses, Opportunities, and Threats) and TOWS analysis. These tools were used to analyze the internal and external factors affecting the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The TOWS matrix helped in aligning the internal strengths and weaknesses with external opportunities and threats to formulate actionable strategies.

Step 3: Statistical Analysis

The third step involved the use of mean and standard deviation to analyze the data gathered from the questionnaires. These statistical measures were employed to assess the central tendency and variability of the responses, providing a clear understanding of the current state of comprehensive quality evaluation system for higher vocational colleges students and the feasibility of the proposed strategies. The analysis was performed using appropriate software to ensure accuracy and precision.

Chapter 4

Results of Analysis

According to the research objectives of Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong, it is required 1) To study the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong, 2) To provide strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong, 3) To evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The researcher sent a questionnaire, conduct a structural interview to the sample group of this study and sent evaluate forms to the experts. The data analysis results are presented as follows:

1. Symbol and abbreviations
2. Presentation of data analysis
3. Results of data analysis

the details are as follows:

Symbol and abbreviations

- | | |
|-----------|------------------------------|
| n | refers to sample |
| \bar{x} | refers to average value |
| S.D. | refers to standard deviation |

Presentation of data analysis

Part 1: Quantitative Analysis

The quantitative analysis of the research consists of two steps, focusing on the respondents' personal information and the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

The presentation of data analysis of this study are as follows:

Step 1: The analysis result about personal information of respondents in vocational colleges in Guangdong, classified by gender, grade and major. Presented the data in the form of frequency and percentage.

Step 2: The analysis result about the questionnaire of current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. Presented the data in the form of the average value and standard deviation.

Part 2: Qualitative Analysis

The qualitative analysis presents insights gained from interviews with experts regarding the development of strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The analysis is divided into two steps:

Step 1: Interview Content Analysis

The results provide an in-depth understanding of the strategies suggested by experts to improve the comprehensive quality evaluation system for higher vocational colleges students. Through qualitative content analysis, the interview responses were categorized to reflect themes relevant to strategy development, including feedback on the strengths, weaknesses, opportunities, and challenges in implementing these strategies.

Step 2: SWOT and TOWS Analysis

In this step, a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) was conducted to categorize the internal and external factors affecting the comprehensive quality evaluation system for higher vocational colleges students. Based on the SWOT findings, a TOWS analysis was used to create strategic recommendations by aligning internal strengths and weaknesses with external opportunities and threats. The TOWS analysis helped to formulate actionable strategies for improving the comprehensive quality evaluation system for higher vocational colleges students, ensuring that the strategies leverage strengths, mitigate weaknesses, capitalize on opportunities, and address threats.

Part 3: Evaluation of Feasibility

The analysis results present data on the evaluation of the proposed strategies in terms of their feasibility. Experts assessed the strategies using structured forms, and the data is reported using mean and standard deviation to determine the overall effectiveness of development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong.

Results of Data Analysis

The researcher conducted a comprehensive analysis of the data, segmented into the following four parts:

Part 1: Quantitative Analysis

Step 1: Analysis of Respondents' Personal Information

The analysis result about personal information of respondents in vocational colleges in Guangdong, classified by gender, grade and major. Presented the data in the form of frequency and percentage.

Table 4.1 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	131	34.29
	Sophomore	141	36.91
	Junior	110	28.80
	Total	382	100
Major	Liberal Arts	100	26.18
	Science	102	26.70
	Engineering	99	25.92
	Art	81	21.2
	Total	382	100

According to the statistical results in Table 4.1, the distribution of five colleges respondents of questionnaires. The gender distribution of respondents are 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% of the total. The ratio of men to women is basically equal. The grade distribution of respondents as follows: There are 131 freshmen, accounting for 34.29%, 141 sophomores, accounting for 36.91%, and 110 juniors, accounting for 28.80%. The ratio of grade is basically equal. The major distribution of respondents 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 major is basically equal.

Step 2: Analysis of the current situation of the comprehensive quality evaluation system for higher vocational colleges students. Presented the data in the form of the average value and standard deviation.

The purpose of this section is to investigate the current situation of the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong. To achieve this purpose, the researcher designed a survey questionnaire. Through exploratory factor analysis and test of the reliability and validity of the questionnaire, it shown that the survey questionnaire designed for this study by researcher meet the requirements of measurement science. Based on the result of the questionnaire survey, this research analyzed the data on the current situation of the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong from four aspects: evaluation subject (personnel), evaluation contents, evaluation method, and evaluation results feedback and application. Through the survey, the researcher gained a deeper understanding of the problems faced by the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong, providing important data support for further creating strategies for improving the comprehensive quality evaluation system of the students. The specific survey results are as follows:

Table 4.2 Analysis of Current Situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong

(n=382)

Factors of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong				
	\bar{X}	S.D.	Level	Rank
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 feedback and application	4.03	0.75	high	2
Total	3.96	0.78	high	

According to Table 4.2, the data showed that the interviewees' overall evaluation of the comprehensive quality evaluation system for higher vocational colleges students was at high level ($\bar{X}=3.96$). Among the four sub dimensions, the highest level was evaluation method ($\bar{X}=4.04$). Next was evaluation results feedback and application ($\bar{X}=4.03$), and the lowest level was evaluation subject (personnel) ($\bar{X}=3.83$).

Table 4.3 Analysis of Average Value and Standard Deviation Data of Evaluation
Subject (Personnel)

(n=382)

Evaluation subject (personnel)	\bar{X}	S.D.	Level	Rank
1. In the process of evaluating the comprehensive quality of students in higher vocational colleges, it is necessary to establish a special evaluation group.	3.93	0.81	high	2
2. During the evaluation process, a multi-evaluation team composed of counselors, teacher representatives, student representatives, etc. is established to carry out student evaluation.	3.96	0.81	high	1
3. Existing evaluation team members from the school are acceptable.	3.83	0.82	high	4
4. The student group plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.	3.89	0.82	high	3
5. The teachers group plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.	3.79	0.79	high	5
6. The practice and employers play a pivotal role in the assessment of students' overall quality in higher vocational colleges.	3.78	0.82	high	6
7. The third-party evaluation plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.	3.63	0.90	high	7
Total	3.83	0.82	high	

According to Table 4.3, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation subject (personnel) was at high level ($\bar{x}=3.83$). Among the 7 questions, the highest score was obtained for "During the evaluation process, a multi-evaluation team composed of counselors, teacher representatives, student representatives, etc. is established to carry out student evaluation." ($\bar{x}=3.96$), followed by "In the process of evaluating the comprehensive quality of students in higher vocational colleges, it is necessary to establish a special evaluation group" ($\bar{x}=3.93$), and the lowest score was obtained for "The third-party evaluation plays a pivotal role in the assessment of students' overall quality in higher vocational colleges" ($\bar{x}=3.63$).

Table 4.4 Analysis of Average Value and Standard Deviation Data of Evaluation

Contents				
(n=382)				
Evaluation Content	\bar{x}	S.D.	Level	Rank
1.The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that students should possess) should include 5 aspects.	3.96	0.82	high	1
2.The current student evaluation content of the higher vocational colleges can accurately and comprehensively assess your overall quality.	3.94	0.80	high	2
Total	3.95	0.81	high	

According to Table 4.4, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation content was at high level ($\bar{x}=3.95$). Among the 2 questions, the highest score was obtained for "The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that students should possess) should

include 5 aspects." ($\bar{x}=3.96$), followed by "The current student evaluation content of the higher vocational colleges can accurately and comprehensively assess your overall quality." ($\bar{x}=3.94$).

Table 4.5 Analysis of Average Value and Standard Deviation Data of Evaluation Contents of Moral Education

(n=382)

Evaluation Contents of Moral Education Evaluation	\bar{x}	S.D.	Level	Rank
1. Shift platform	3.94	0.88	high	5
2. Party school training	4.06	0.81	high	3
3. Party member	3.99	0.87	high	4
4. Volunteer Service	4.13	0.79	high	2
5. Social practice	4.14	0.76	high	1
6. Student backbone	3.93	0.84	high	6
7. Ideological and political contest	3.92	0.83	high	7
Total	4.02	0.83	high	

According to Table 4.5, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation contents of moral education evaluation was at high level ($\bar{x}=4.02$). Among the 7 questions, the highest score was obtained for "Social practice" ($\bar{x}=4.14$), followed by "Volunteer Service" ($\bar{x}=4.13$), and the lowest score was obtained for "Ideological and political contest" ($\bar{x}=3.92$).

Table 4.6 Analysis of Average Value and Standard Deviation Data of Evaluation
Contents of Intellectual Education

(n=382)

Evaluation Contents of Intellectual Education	\bar{X}	S.D.	Level	Rank
1. Course achievement	4.15	0.73	high	1
2. Innovation and entrepreneurship competition	4.01	0.81	high	3
3. Entrepreneurial practice	4.00	0.82	high	4
4. Skills competition	4.09	0.79	high	2
Total	4.06	0.79	high	

According to Table 4.6, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation contents of intellectual education was at high level ($\bar{X}=4.06$). Among the 4 questions, the highest score was obtained for "Course achievement" ($\bar{X}=4.15$), followed by "Skills competition" ($\bar{X}=4.09$), and the lowest score was obtained for "Entrepreneurial practice" ($\bar{X}=4.00$). In questionnaire surveys, standard deviation is an important statistical indicator to measure the degree of data dispersion. The larger the standard deviation, the more dispersed the data distribution is the smaller the standard deviation, the more concentrated the data distribution. Table 4.6 shows that the standard deviations of the evaluators are all between 0.5-1, indicating that the questionnaire design is reasonable, and the survey results are credible and valid.

Table 4.7 Analysis of Average Value and Standard Deviation Data of Evaluation
Contents of Intellectual Education

(n=382)

Evaluation Contents of Physical Education	\bar{X}	S.D.	Level	Rank
1. Physical fitness test up to standard	3.84	0.96	high	2
2. Exercise regularly	4.01	0.82	high	1
3. Take part in a sports match	3.74	0.91	high	3
Total	3.86	0.90	high	

According to Table 4.7, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation contents of physical education was at high level ($\bar{X}=3.86$). Among the 3 questions, the highest score was obtained for "Exercise regularly" ($\bar{X}=4.01$), followed by "Physical fitness test up to standard" ($\bar{X}=3.84$), and the lowest score was obtained for "Exercise regularly" ($\bar{X}=3.74$).

Table 4.8 Analysis of Average Value and Standard Deviation Data of Evaluation
Contents of Aesthetic Education

(n=382)

Evaluation Contents of Aesthetic Education	\bar{X}	S.D.	Level	Rank
1. Participate in the Aesthetic Education Society	3.88	0.83	high	1
2. Participate in aesthetic education competitions	3.82	0.87	high	3
3. Participate in literary performances	3.86	0.84	high	2
Total	3.85	0.85	high	

According to Table 4.8, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation contents of aesthetic education was at high level ($\bar{x}=3.85$). Among the 3 questions, the highest score was obtained for "Participate in the Aesthetic Education Society" ($\bar{x}=3.88$), followed by "Participate in literary performances" ($\bar{x}=3.86$), and the lowest score was obtained for "Participate in aesthetic education competitions" ($\bar{x}=3.82$).

Table 4.9 Analysis of Average Value and Standard Deviation Data of Evaluation Contents of Labor Education

(n=382)

Evaluation Contents of Labor Education	\bar{x}	S.D.	Level	Rank
1. Participate in dormitory labor	3.96	0.80	high	3
2. Participate in public sector labor	4.03	0.79	high	2
3. To participate in voluntary labor services	4.04	0.79	high	1
Total	4.01	0.79	high	

According to Table 4.9, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation contents of labor education was at high level ($\bar{x}=4.01$). Among the 3 questions, the highest score was obtained for "To participate in voluntary labor services" ($\bar{x}=4.04$), followed by "Participate in public sector labor" ($\bar{x}=4.03$), and the lowest score was obtained for "Participate in dormitory labor" ($\bar{x}=3.96$).

Table 4.10 Analysis of Average Value and Standard Deviation Data of Evaluation

Method				
(n=382)				
Evaluation method	\bar{X}	S.D.	Level	Rank
1. The assessment methods for students' comprehensive quality in higher vocational colleges should encompass testing, performance evaluation, competitive activities, growth assessment, and other relevant measures.	4.07	0.69	high	1
2. The comprehensive student evaluation in your school adopts the method of testing, performance evaluation, competition activities.	3.99	0.74	high	6
3. Course evaluation should adopt the evaluation methods of final examination, course work, daily subject evaluation and experimental practice.	4.05	0.71	high	2
4. Your school's curriculum evaluation adopts the evaluation method of exam, homework, experiment or practical activity.	4.04	0.72	high	3
5. The evaluation of extracurricular activities should adopt the evaluation methods of written examination, credit hours, extra points for activities, and growth record cards.	4.02	0.74	high	5
6. The evaluation of extracurricular activities in your school adopts the method of credits, volunteer hours, activity bonus points.	4.03	0.75	high	4
Total	4.04	0.73	high	

According to Table 4.10, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation method was at high level ($\bar{x}=4.04$). Among the 6 questions, the highest score was obtained for "The assessment methods for students' comprehensive quality in higher vocational colleges should encompass testing, performance evaluation, competitive activities, growth assessment, and other relevant measures." ($\bar{x}=4.07$), followed by "Course evaluation should adopt the evaluation methods of final examination, course work, daily subject evaluation and experimental practice." ($\bar{x}=4.05$), and the lowest score was obtained for "The comprehensive student evaluation in your school adopts the method of testing, performance evaluation, competition activities." ($\bar{x}=3.99$).

Table 4.11 Analysis of Average Value and Standard Deviation Data of Evaluation Method (n=382)

Evaluation results feedback and application	\bar{x}	S.D.	Level	Rank
1. After comprehensive quality evaluation, communication and feedback should be set up.	4.06	0.74	high	1
2. Students, counselors, class teachers, teachers, administrator of relevant departments and other personnel should participate in the communication and feedback link after evaluation.	4.02	0.74	high	4
3. The results of comprehensive quality evaluation are presented in the form of scores, grade rankings and comprehensive comments.	4.01	0.77	high	5

Table 4.11 (Continued)

(n=382)

Evaluation results feedback and application	\bar{X}	S.D.	Level	Rank
4. The results of comprehensive quality evaluation can be applied to the evaluation of excellence, recommendation of employment, study, party membership and so on.	4.03	0.74	high	3
5. The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable.	4.00	0.74	high	6
6. In the process of student evaluation, it is necessary to set up a supervisory department to supervise and review.	4.05	0.74	high	2
Total	4.03	0.75	high	

According to Table 4.11, the average score of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in terms of evaluation results feedback and application was at high level ($\bar{X}=4.03$). Among the 6 questions, the highest score was obtained for "After comprehensive quality evaluation, communication and feedback should be set up." ($\bar{X}=4.06$), followed by "In the process of student evaluation, it is necessary to set up a supervisory department to supervise and review." ($\bar{X}=4.05$), and the lowest score was obtained for "The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable." ($\bar{X}=4.00$).

Part 2: Qualitative Analysis

Step 1: Interview Content Analysis

This section aims to create strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong. To

achieve this purpose, this study used interviews to explore in-depth the current situation and influencing factors of the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong and attempted to create improvement strategies. In this interview, a total of 10 teachers and administrators from five higher vocational colleges in north of Guangdong, were interviewed. Through the interviews, the researchers gained a deep understanding of the problems and the influencing factors of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong, providing important data support for us to further create strategies for improving the comprehensive quality evaluation system for higher vocational colleges students.

For this study, the researchers used an interview outline designed specifically for this study and presented the information provided by the interviewees through a structured interview. The interviewers met the following conditions: a total of 10 people, they had deputy senior professional titles or above and had worked in higher vocational colleges for more than 15 years.

The basic information analysis of the interviewer is as follows:

Table 4.12 Basic situation analysis of the respondents

		(n=10)		
Personal information		n	Percentage (%)	
Gender	Male	4	40.00	
	Female	6	60.00	
	Total	10	100.00	
work experience in college(years)	≤15	1	10.00	
	16-19	6	60.00	
	≥20	3	30.00	
	Total	10	100.00	
job title	Associate Professor	7	70.00	
	Professor	3	30.00	
	Total	10	100.00	

Table 4.12 (Continued)

Personal information		n	Percentage (%)
Position	Administrators	5	50.00
	Teacher	5	50.00
Total		10	100.00

Table 4.12 shows that this study involved 10 interviewees, of which 4 were male, accounting for 40%, and 6 were female, accounting for 60%. Work experience in college, 1 person with less than or equal to 15 years, accounting for 10%, 6 people with 16-19 years, accounting for 60%, and 3 people with more than or equal to 20 years, accounting for 30%. Position, 5 people were administrators, accounting for 50.0%, and 5 people were teachers, accounting for 50.0%. The overall distribution of the population in this questionnaire survey is relatively even.

The research conducted 10 online face-to-face interviews. Each interview is conducted one-on-one and no one else can hear the conversation to ensure that the interviewee is not distracted by other factors.

According to the collation and statistics of the interview materials, the influencing factors and frequency statistics of the comprehensive quality evaluation system for higher vocational colleges students in north of Guangdong are shown in Table 4.13.

Table 4.13 Influencing Factors and Frequency Statistics of Influencing Factors

No	Influencing Factors	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency
1	The evaluators are not professional enough	√	√		√	√		√			√	6
2	Insufficient work experience	√		√		√	√		√	√		6
3	Insufficient training	√		√		√		√			√	5
4	Have personal bias	√		√	√							3
5	Insufficient communication skills		√				√	√	√			4
6	Insufficient understanding of evaluation criteria	√					√		√			3
7	Not broad enough representation		√		√	√		√			√	5
8	Insufficient innovation mechanism	√							√			2
9	Insufficient teamwork		√			√		√				3
10	Not consistent with social needs	√					√			√	√	4
11	Not consistent with student development		√		√				√			3
12	The curriculum is unreasonable	√		√								2
13	The evaluation criteria are unreasonable		√			√		√		√		4
14	Teacher quality				√							1
15	Policy Guidance			√			√					2
16	international perspective	√						√				2

Table 4.13 (Continued)

No	Influencing Factors	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency
17	Diversity of evaluation methods		√		√				√	√	√	5
18	The scientific nature of evaluation tools	√				√						2
19	Individual differences among students			√			√					2
20	The evaluation process is not transparent		√					√			√	3
21	Methods are not updated in time	√				√				√	√	4
22	Practical evaluation		√				√					2
23	Less accurate results			√	√				√			3
24	Feedback is not timely	√	√			√		√	√	√		6
25	Not widely used as a result						√				√	2
26	The feedback mechanism is imperfect			√	√					√		3
27	Teachers are not very supportive	√	√					√				3
28	Low recognition from parents and society					√						1
29	Evaluation results are not transparent						√		√			2
30	The improvement mechanism is not perfect yet	√		√								2
Total		14	11	9	8	10	9	10	9	7	8	

According to Table 4.13, from the result of word frequency statistics, in 30 kinds of the comprehensive quality evaluation system for higher vocational colleges students influence factors, the three influencing factors with the highest frequency are the evaluators are not professional enough (mentioned 6 times), Insufficient work experience (mentioned 6 times), Feedback is not timely (mentioned 6 times).

According to the collation and statistics of the interview materials, the development strategies and frequency statistics of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong are shown in Table 4.14.

Table 4.14 Strategies and Frequency Statistics of development Strategies

No	Strategy	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency
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

Table 4.14 (Continued)

No	Strategy	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency
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 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	

According to the statistical of word frequency in table 4.14, the interviewees proposed some constructive suggestions, among the 22 strategies for improving the comprehensive quality evaluation system for higher vocational colleges students, the three improvement strategies with the highest frequency are strengthen training

(mentioned 5 times), In line with student development (mentioned 5 times), and Timely feedback on results (mentioned 5 times).

Through the questionnaire survey on the comprehensive quality evaluation system for higher vocational colleges students, it can be seen that the comprehensive quality evaluation system for higher vocational colleges students is in the following aspects: 1) Existing evaluation team members from the school are acceptable, 2) The current student evaluation content of the higher vocational colleges can accurately and comprehensively assess your overall quality, 3) The comprehensive student evaluation in your school adopts the method of testing, performance evaluation, competition activities, 4) The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable. These questions are the lowest, and targeted strategies need to be proposed for these problems. Improving the development comprehensive quality evaluation system for higher vocational colleges students depends not only on the efforts of students themselves, but also on the support of external environments such as society, school, and family. Therefore, this study combines the results of questionnaire surveys and interview surveys and combines SWOT and PEST analysis methods to formulate a scientific and reasonable promotion strategy draft from the perspectives of society, school, family and student personal.

Step 2: SWOT and TOWS Analysis

In this step, a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) was conducted to categorize the internal and external factors affecting the comprehensive quality evaluation system for higher vocational colleges students. Based on the SWOT findings, a TOWS analysis was used to create strategic recommendations by aligning internal strengths and weaknesses with external opportunities and threats. The TOWS analysis helped to formulate actionable strategies for improving the comprehensive quality evaluation system for higher vocational colleges students, ensuring that the strategies leverage strengths, mitigate weaknesses, capitalize on opportunities, and address threats.

SWOT analysis provides inquiries about the strengths, weaknesses, opportunities, and threats of each element. The synthesized data is illustrated in Figures 4.1.

<p>S1. National and local government policy support (S1).</p> <p>S2. Diversified evaluation system reflects the comprehensiveness of comprehensive quality evaluation (S2).</p> <p>S3. Guangdong Province is an economically powerful province with regional economic advantages. (S3).</p> <p>S4. Cooperation between higher vocational colleges and enterprises has a good foundation. (S4).</p>	<p>W1. The evaluation standards of different colleges are not uniform(W1).</p> <p>W2. Evaluation involves highly subjective indicators and is difficult to implement in practice. (W2).</p> <p>W3. Some teachers have insufficient abilities, which affects the evaluation effect (W3).</p> <p>W4. Student participation is not strong (W4).</p>
<p>O1. The development of information technology and big data analysis provides digital technical support (O1).</p> <p>O2. Vocational education reform trend, system construction ushering in good opportunities (O2).</p> <p>O3. Employers' demand for high-quality and comprehensive talents increases (O3).</p> <p>O4. Introduce international evaluation tools and methods to improve the level of local systems (O4).</p>	<p>T1. Unbalanced regional development in Guangdong Province (T1).</p> <p>T2. There is still a bias in society's understanding of the importance of students' comprehensive quality evaluation (T2).</p> <p>T3. Some institutions have insufficient funds and resources (T3).</p> <p>T4. The development of different industries has rapid changes in talent demand(T4).</p>

Figures 4.1 SWOT Analysis Interview Content

Table 4.15 TOWS Matrix Analysis

<p style="text-align: center;">Internal</p> <p style="text-align: center;">External</p>	<p>Strengths (S)</p> <p>S1. National and local government policy support (S1).</p> <p>S2. Diversified evaluation system reflects the comprehensiveness of comprehensive quality evaluation (S2).</p> <p>S3. Guangdong Province is an economically powerful province with regional economic advantages (S3).</p> <p>S4. Cooperation between higher vocational colleges and enterprises has a good foundation(S4).</p>	<p>Weaknesses (W)</p> <p>W1. The evaluation standards of different colleges are not uniform(W1).</p> <p>W2. Evaluation involves highly subjective indicators and is difficult to implement in practice (W2).</p> <p>W3. Some teachers have insufficient abilities, which affects the evaluation effect (W3).</p> <p>W4. Student participation is not strong (W4).</p>
	<p>Opportunities (O)</p> <p>O1. The development of information technology and big data analysis provides digital technical support (O1).</p> <p>O2. Vocational education reform trend, system construction ushering in good opportunities (O2).</p> <p>O3. Employers' demand for high-quality and comprehensive talents increases (O3).</p> <p>O4. Introduce international evaluation tools and methods to improve the level of local systems (O4).</p>	<p>SO (Leverage Strengths to Seize Opportunities) Strategy:</p> <p>1.Policies promote informatization construction (S1 + O1): Use government policy support to promote the development and application of intelligent evaluation tools and build a digital evaluation platform.</p> <p>2.Deepen school-enterprise cooperation (S4 + O3): Cooperate with key enterprises to jointly develop student quality evaluation standards based on job requirements to improve the applicability and authority of evaluation.</p> <p>3.Introduction of international evaluation tools (S2 + O4): Use advanced international evaluation methods and tools to optimize the existing evaluation system and incorporate local characteristics.</p> <p>4.Promote regional economic support for education (S3+O2): Leverage the economic advantages of Guangdong Province to attract enterprises and social forces to invest in the construction and promotion of the evaluation system.</p>

Table 4.15 (Continued)

<p style="text-align: center;">Internal</p> <p style="text-align: center;">External</p>	<p>Strengths (S)</p> <p>S1. National and local government policy support (S1).</p> <p>S2. Diversified evaluation system reflects the comprehensiveness of comprehensive quality evaluation (S2).</p> <p>S3. Guangdong Province is an economically powerful province with regional economic advantages (S3).</p> <p>S4. Cooperation between higher vocational colleges and enterprises has a good foundation(S4).</p>	<p>Weaknesses (W)</p> <p>W1. The evaluation standards of different colleges are not uniform(W1).</p> <p>W2. Evaluation involves highly subjective indicators and is difficult to implement in practice (W2).</p> <p>W3. Some teachers have insufficient abilities, which affects the evaluation effect (W3).</p> <p>W4. Student participation is not strong (W4).</p>
	<p>Threats (T)</p> <p>T1. Unbalanced regional development in Guangdong Province (T1).</p> <p>T2. There is still a bias in society's understanding of the importance of students' comprehensive quality evaluation (T2).</p> <p>T3. Some institutions have insufficient funds and resources (T3).</p> <p>T4. The development of different industries has rapid changes in talent demand(T4).</p>	<p>ST (Leverage Strengths to Counteract Threats) Strategy:</p> <p>1.Narrow regional gaps (S1 + T1): Promote regional coordinated development and provide more policy preferences and financial support to areas with weaker educational resources.</p> <p>2.Dynamic adjustment evaluation of school-enterprise collaboration (S4 + T4): Cooperate with leading enterprises in the industry to regularly update the evaluation system so that it can quickly adapt to the changing needs of the industry.</p> <p>3.Improve social cognition (S2 + T2): Use diversified evaluation results to display to increase society's recognition of the comprehensive quality of students in higher vocational colleges.</p> <p>4.Resource complementation mechanism (S3 + T3): Establish a resource sharing platform for regional colleges and universities, optimize resource allocation, and alleviate the financial and resource pressure on individual colleges.</p>

Table 4.16 The table of corresponding strategies derived from the TOWS analysis

Category	Aspects	Strategies
SO	Policies promote informatization construction	1. Use government policy support to promote the development and application of intelligent evaluation tools and build a digital evaluation platform.
	Deepen school-enterprise cooperation	2. Develop student quality evaluation standards to improve the applicability and authority of evaluation.
	Introduction of international evaluation tools	3. With the help of internationally advanced evaluation methods. 4. With the help of internationally advanced evaluation tools
	Promote regional economic support for education	5. Attract business and social forces
	Unified evaluation criteria	6. Develop comprehensive quality evaluation standards covering higher vocational colleges across the province.
WO	Technical means reduce subjectivity	7. Leverage big data and artificial intelligence technology
	Teacher Capacity Improvement Plan	8. Provide training and further education opportunities for teachers
	Improve student engagement	9. Encourage students to actively participate in the evaluation process
		10. Meet student development requirements

Table 4.16 (Continued)

Category	Aspects	Strategies
WO	Unified evaluation criteria	6. Develop comprehensive quality evaluation standards covering higher vocational colleges across the province.
	Technical means reduce subjectivity	7. Leverage big data and artificial intelligence technology
	Teacher Capacity Improvement Plan	8. Provide training and further education opportunities for teachers
	Improve student engagement	9. Encourage students to actively participate in the evaluation process 10. Meet student development requirements
ST	Narrow regional gaps	11. The evaluation system adapts to the needs of social development.
	Dynamic adjustment evaluation of school-enterprise collaboration	12. Strengthen cooperation and hold regular symposiums and feedback meetings.
	Improve social cognition	13. Increase outreach and provide personalized feedback. 14. Increase publicity and provide timely feedback on evaluation results.
	Resource complementation mechanism	15. Optimize resource allocation and strengthen training to make evaluators more professional.

Table 4.16 (Continued)

Category	Aspects	Strategies
WT	Improve fund usage efficiency	16. Develop resource allocation optimization plans to strengthen students' multiple abilities.
	Introduce school-enterprise cooperation funds	17. Use the school-enterprise cooperation model to diversify the participants.
	Dynamic evaluation mechanism	18. Design a flexible evaluation indicator framework to strengthen process evaluation. 19. Design a flexible evaluation indicator framework to strengthen result evaluation.
	Diversity Promotion	20. Recruit people with experience in evaluation work to strengthen evaluation effects and change social prejudices.

Based on the questionnaires and interviews, this study analyzed the above SWOT and TOWS methods and proposed a draft strategy to development comprehensive quality evaluation system for higher vocational colleges students. These draft strategies are based on their results of the questionnaire survey and determine the items with the lowest averages cores of each variable. These suggestions are also supported by the interview results and relevant literature. Draft strategy, which mainly includes four aspects, in a total of 20 measures, list of strategies is as follow: (Table 4.17)

Table 4.17 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

The specific strategies are as follows (Table 4.18):

Table 4.18 Strategies for Improving the comprehensive quality evaluation system for higher vocational colleges students

Strategies	How to
Strategies for clarifying evaluation subject (personnel)	
1.Possess expertise in evaluation	Should have the following professional knowledge: education, psychology, vocational education, measurement and evaluation theory, data analysis and statistical methods. In addition, they should also understand professional skill standards, industry needs and relevant laws and policies, can apply information technology, and be able to effectively use intelligent evaluation systems for data collection and analysis.
2.Have experience in evaluation work	Should have extensive experience in education and teaching management and be familiar with the vocational education and training process. They should have practical experience in conducting classroom observations, project evaluations, skills competition reviews, etc., master data analysis and statistical methods, and be able to use intelligent evaluation systems for comprehensive evaluations.
3.strengthen training	Regularly train evaluators on management systems, student management, teaching abilities, evaluation work methods, and evaluation tools to improve their evaluation capabilities and fairness.
4.Diversity of participants	Diversity should include representatives from different departments and disciplines, such as teacher representatives, student representatives, counselors, administrative departments, etc., or the introduction of third-party evaluation agencies, which can ensure the comprehensiveness and multi-dimensionality of the evaluation.
5.Students as the main body	Through the participatory evaluation mechanism, students are encouraged to self-evaluate and peer-evaluate to enhance self-understanding and development. Combined with personalized learning plans, pay attention to individual differences of students

Table 4.18 (Continued)

Strategies	How to
	and provide customized feedback and guidance. Establish smooth communication channels between teachers and students, listen to students' opinions and suggestions, and adjust evaluation methods and standards.
Strategies for optimizing evaluation contents	
1.In line with student development	The content of evaluation must be consistent with the school's educational goals and school positioning, pay attention to the student development process, and promote the all-round development of students.
2.Strengthen multiple abilities	Professional skills and practical ability, enhance professional quality through projects and internships; Innovation ability, cultivate creative thinking through innovative and entrepreneurial activities; Teamwork and communication skills, enhance the spirit of collaboration through group projects and club activities; Social responsibility and professional ethics, through volunteer service and moral education courses to cultivate social responsibility and professional ethics.
3.Clarify standards and systems	Clear evaluation standards and a clear indicator system are to clarify the respective standards and indicators for students' moral, intellectual, physical, artistic and other aspects, especially the academic performance indicators that students are particularly concerned about.
4.Operable	The evaluation content must be based and operable. For example, students can master the evaluation content proficiently, guide their own development according to the evaluation content, and complete learning tasks according to the evaluation content.
5.Adapt to social development needs	Vocational colleges are closely related to the development of the industry and must keep up with the development needs of the industry to cultivate talents. Therefore, student evaluation must adapt to the development needs of society and industry.

Table 4.18 (Continued)

Strategies	How to
Strategies for improving evaluation method	
1.process evaluation	Process evaluation can be carried out through various aspects of recording and feedback such as classroom participation, project practice, skills competitions, club activities, etc., combined with quantitative and qualitative evaluation methods.
2.Result evaluation	The result evaluation is based on a comprehensive evaluation of test scores, skill certificates, internship performance, project research results, etc., combined with teacher evaluation and self-evaluation, to form a final quality evaluation report.
3.Adopt intelligent evaluation system	The comprehensive quality evaluation of students in higher vocational colleges can be realized through intelligent evaluation systems. The system integrates data collection, analysis and feedback functions, covering dimensions such as classroom performance, project practice, and skills competitions. Through big data analysis, students' development trajectories are monitored in real time and personalized feedback and improvement suggestions are provided.
4.Various evaluation tools	Comprehensive collection of student performance data through online tests, classroom observations, practical projects, skills competitions, and student self-evaluation. Combining intelligent evaluation systems, big data analysis and artificial intelligence technology to achieve scientific assessment of comprehensive quality. Qualitative information can also be obtained through questionnaires and interviews to ensure comprehensive and fair evaluation and help students develop in an all-round way.
5.Various evaluation methods	Vocational colleges can comprehensively evaluate students' comprehensive quality through various methods such as online tests, classroom observations, practical projects, skills competitions, student self-evaluations, and teacher evaluations to ensure scientific and fair evaluations.

Table 4.18 (Continued)

Strategies	How to
Strategies for optimizing evaluation results feedback and application	
1. Timely feedback on results	To achieve timely feedback of results, an efficient data management and processing system needs to be established. Use the intelligent evaluation platform to update and analyze evaluation data in real time, automatically generate reports and quickly communicate them to students.
2. Hold regular feedback meetings	Develop a clear feedback schedule, such as feedback on evaluation results once every semester or quarter. Use the intelligent evaluation system to automatically generate evaluation reports and publish them regularly through the campus management system, email or online platform. Organize regular feedback meetings where teachers meet with students to discuss evaluation results.
3. Increase tripartite exchanges	Regularly hold parent meetings and student symposiums to share evaluation results and suggestions; organize joint seminars to allow parents to participate in student development planning; set up feedback channels to collect opinions from parents and students; and provide detailed comprehensive quality reports to help parents understand student progress.
4. Provide personalized feedback	Analyze each student's specific performance and identify their strengths and weaknesses; formulate personalized improvement suggestions based on the student's career goals and development needs; use intelligent systems to generate personalized feedback reports; provide students with coaching and resource support to help them achieve their goals Target.
5. Leverage data analytics	Use statistical analysis to identify performance trends and problem areas, generate personalized student feedback reports, and provide specific suggestions for improvement. Analyze feedback effects and adjust evaluation standards and methods. Predict student development trends and optimize resource

Table 4.18 (Continued)

Strategies	How to
	allocation. Improve teaching methods and support measures through data-driven decision-making.

The focus group discussion about the draft of the Strategies for improving the comprehensive quality evaluation system for higher vocational colleges students was analyzed by content analysis.

Table 4.19 Status information statistics of experts

(n=10)

	Personal information	n	percent
Gender	Male	4	40.00
	Female	6	60.00
	Total	10	100.00
Position	Administrators	5	50.00
	Teacher	5	50.00
	Total	10	100.00

For this step, 10 experts were invited to participate in a focus group discussion. According to Table 4.19, In terms of gender, there were 4 male teachers, accounting for 40%; Position, 5 people were administrators, accounting for 50.0%, and 5 people were teachers, accounting for 50.0%.

According to the collection and statistics of the focus group discussion contents, the Experts 'acceptance of the proposed draft strategy and the new strategy and frequency data for the feasibility of the strategy are shown in Table 4.20

Table 4.20 The discussion result and frequency statistics of the focus group discussion

Discussion topic	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage100%
Whether the strategies mentioned in the draft are necessary?												
Strategies for clarifying evaluation subject (personnel)	√	√	√	√	√	√	√	√	√	√	10	100.00
Strategies for optimizing evaluation contents	√	√	√	√	√	√	√	√	√	√	10	100.00
Strategies for improving evaluation method	√	√	√	√	√	√	√	√	√	√	10	100.00
Strategies for optimizing evaluation results feedback and application	√	√	√	√	√	√	√	√	√	√	10	100.00
How to make the Strategies for improving the comprehensive quality evaluation system for higher vocational colleges students more sustainable?												

Table 4.20 (Continued)

Discussion topic	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage100%
1. Strategies for clarifying evaluation subject (personnel)												
1.1 Possess expertise in evaluation	√	√	√	√	√	√		√	√	√	9	90.00
1.2 Have experience in evaluation work	√	√		√	√		√	√	√	√	8	80.00
1.3 strengthen training	√	√	√	√	√		√	√	√	√	9	90.00
1.4 Diversity of participants	√		√	√	√	√	√		√	√	8	80.00
1.5 Students as the main body	√	√	√			√	√		√	√	7	70.00
2. Strategies for optimizing evaluation contents												
2.1 In line with student development		√		√	√	√	√	√	√	√	8	80.00
2.2 Strengthen multiple abilities	√	√	√	√	√			√	√	√	8	80.00
2.3 Clarify standards and systems	√	√	√				√	√	√	√	7	70.00
2.4 Operable		√	√	√	√	√	√	√	√	√	9	90.00
2.5 Adapt to social development needs	√	√	√		√	√	√	√	√	√	9	90.00

Table 4.20 (Continued)

Discussion topic	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage100%
3. Strategies for improving evaluation method												
3.1 process evaluation	√	√	√	√			√	√	√	√	8	80.00
3.2 Result evaluation	√		√		√	√	√	√	√	√	8	80.00
3.3 Adopt intelligent evaluation system		√	√	√	√	√	√	√	√	√	9	90.00
3.4 Various evaluation tools	√	√	√		√	√	√		√		7	70.00
3.5 Various evaluation methods	√	√	√	√		√	√	√		√	8	80.00
4.Strategies for optimizing evaluation results feedback and application												
4.1 Timely feedback on results	√		√	√	√		√	√	√	√	8	80.00
4.2 Hold regular feedback meetings		√	√	√	√	√	√	√		√	8	80.00
4.3 Increase tripartite exchanges	√			√	√	√		√	√	√	7	70.00
4.4 Provide personalized feedback	√	√	√		√	√		√		√	7	70.00
4.5 Leverage data analytics	√	√	√	√	√	√	√		√	√	9	90.00

According to Table 4.20, from the results of word frequency statistics, the discussion topic about “Whether the strategies mentioned in the draft are necessary?”, 10 experts said yes, the percentage of frequency statistics exceed 100.00%. During the focus group discussion, about the discussion topic “How to make the Strategies for improving the comprehensive quality evaluation system for higher vocational colleges students more sustainable?”, Experts approved the draft of the 20 strategies.

Combining TOWS strategic analysis with the results of the focus group discussion the draft strategy was adjusted and improved to derive the final strategy, as shown in the table below:

Table 4.21 the Strategies for improving the comprehensive quality evaluation system for higher vocational colleges students

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

According to Table 4.21, the data showed that the Strategies for improving the comprehensive quality evaluation system for higher vocational colleges students including 4 aspects of Strategies: Strategies for clarifying evaluation subject (personnel) including 5 measures; Strategies for optimizing evaluation contents including 5 measures; Strategies for improving evaluation method including 5 measures, Strategies for optimizing evaluation results feedback and application including 5 measures, total of 20 measures.

The specific strategies are as follows:

Table 4.22 Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong

Strategies	How to
Strategies for clarifying evaluation subject (personnel)	
1.Possess expertise in evaluation	Should have the following professional knowledge: education, psychology, vocational education, measurement and evaluation theory, data analysis and statistical methods. In addition, they should also understand professional skill standards, industry needs and relevant laws and policies, can apply information technology, and be able to effectively use intelligent evaluation systems for data collection and analysis.
2.Have experience in evaluation work	Should have extensive experience in education and teaching management and be familiar with the vocational education and training process. They should have practical experience in conducting classroom observations, project evaluations, skills competition reviews, etc., master data analysis and statistical methods, and be able to use intelligent evaluation systems for comprehensive evaluations.
3.strengthen training	Regularly train evaluators on management systems, student management, teaching abilities, evaluation work methods, and evaluation tools to improve their evaluation capabilities and fairness.
4.Diversity of participants	Diversity should include representatives from different departments and disciplines, such as teacher representatives, student representatives, counselors, administrative departments, etc., or the introduction of third-party evaluation agencies, which can ensure the comprehensiveness and multi-dimensionality of the evaluation.

Table 4.22 (Continued)

Strategies	How to
5.Students as the main body	Through the participatory evaluation mechanism, students are encouraged to self-evaluate and peer-evaluate to enhance self-understanding and development. Combined with personalized learning plans, pay attention to individual differences of students and provide customized feedback and guidance. Establish smooth communication channels between teachers and students, listen to students' opinions and suggestions, and adjust evaluation methods and standards.
Strategies for optimizing evaluation contents	
1.In line with student development	The content of evaluation must be consistent with the school's educational goals and school positioning, pay attention to the student development process, and promote the all-round development of students.
2.Strengthen multiple abilities	Professional skills and practical ability, enhance professional quality through projects and internships; Innovation ability, cultivate creative thinking through innovative and entrepreneurial activities; Teamwork and communication skills, enhance the spirit of collaboration through group projects and club activities; Social responsibility and professional ethics, through volunteer service and moral education courses to cultivate social responsibility and professional ethics.
3.Clarify standards and systems	Clear evaluation standards and a clear indicator system are to clarify the respective standards and indicators for students' moral, intellectual, physical, artistic and other aspects, especially the academic performance indicators that students are particularly concerned about.

Table 4.22 (Continued)

Strategies	How to
4. Operable	The evaluation content must be based and operable. For example, students can master the evaluation content proficiently, guide their own development according to the evaluation content, and complete learning tasks according to the evaluation content.
5. Adapt to social development needs	Vocational colleges are closely related to the development of the industry and must keep up with the development needs of the industry to cultivate talents. Therefore, student evaluation must adapt to the development needs of society and industry.
Strategies for improving evaluation method	
1. process evaluation	Process evaluation can be carried out through various aspects of recording and feedback such as classroom participation, project practice, skills competitions, club activities, etc., combined with quantitative and qualitative evaluation methods.
2. Result evaluation	The result evaluation is based on a comprehensive evaluation of test scores, skill certificates, internship performance, project research results, etc., combined with teacher evaluation and self-evaluation, to form a final quality evaluation report.
3. Adopt intelligent evaluation system	The comprehensive quality evaluation of students in higher vocational colleges can be realized through intelligent evaluation systems. The system integrates data collection, analysis and feedback functions, covering dimensions such as classroom performance, project practice, and skills competitions. Through big data analysis, students development trajectories are monitored in real time and

Table 4.22 (Continued)

Strategies	How to
	personalized feedback and improvement suggestions are provided.
4.Various evaluation tools	Comprehensive collection of student performance data through online tests, classroom observations, practical projects, skills competitions, and student self-evaluation. Combining intelligent evaluation systems, big data analysis and artificial intelligence technology to achieve scientific assessment of comprehensive quality. Qualitative information can also be obtained through questionnaires and interviews to ensure comprehensive and fair evaluation and help students develop in an all-round way.
5.Various evaluation methods	Vocational colleges can comprehensively evaluate students' comprehensive quality through various methods such as online tests, classroom observations, practical projects, skills competitions, student self-evaluations, and teacher evaluations to ensure scientific and fair evaluations.
Strategies for optimizing evaluation results feedback and application	
1.Timely feedback on results	To achieve timely feedback of results, an efficient data management and processing system needs to be established. Use the intelligent evaluation platform to update and analyze evaluation data in real time, automatically generate reports and quickly communicate them to students.
2.Hold regular feedback meetings	Develop a clear feedback schedule, such as feedback on evaluation results once every semester or quarter. Use the intelligent evaluation system to automatically generate evaluation reports and publish them regularly through the campus management system, email or online platform.

Table 4.22 (Continued)

Strategies	How to
	Organize regular feedback meetings where teachers meet with students to discuss evaluation results.
3.Increase tripartite exchanges	Regularly hold parent meetings and student symposiums to share evaluation results and suggestions; organize joint seminars to allow parents to participate in student development planning; set up feedback channels to collect opinions from parents and students; and provide detailed comprehensive quality reports to help parents understand student progress.
4.Provide personalized feedback	Analyze each student's specific performance and identify their strengths and weaknesses; formulate personalized improvement suggestions based on the student's career goals and development needs; use intelligent systems to generate personalized feedback reports; provide students with coaching and resource support to help them achieve their goals Target.
5.Leverage data analytics	Use statistical analysis to identify performance trends and problem areas, generate personalized student feedback reports, and provide specific suggestions for improvement. Analyze feedback effects and adjust evaluation standards and methods. Predict student development trends and optimize resource allocation. Improve teaching methods and support measures through data-driven decision-making.

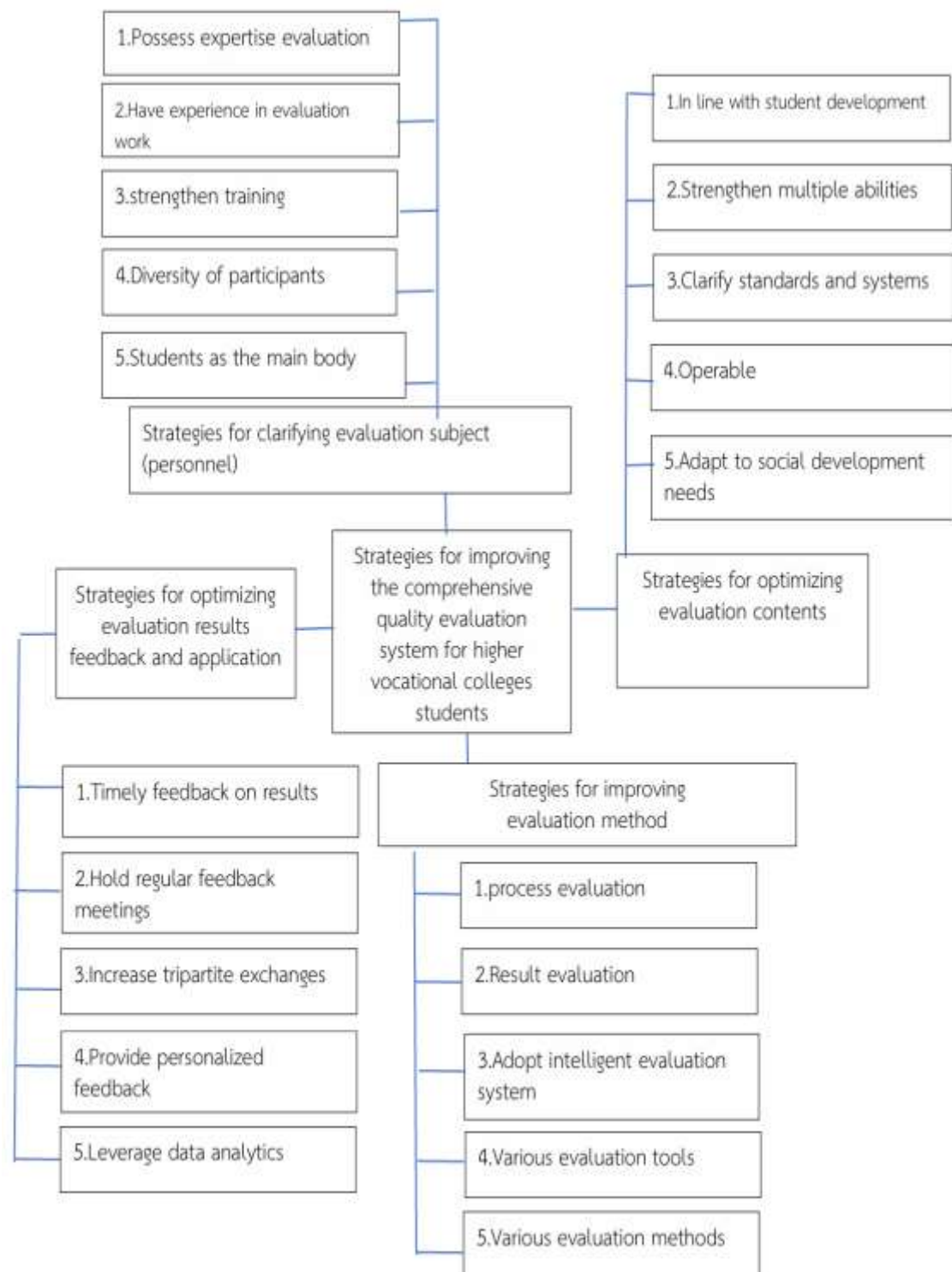


Figure 4.2 Strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong

Part 3: The analysis result about the evaluation of the feasibility of development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong. Presented the data in the form of the average value and standard deviation.

This section aims to evaluate the feasibility of development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong. To this end, 5 experts from 5 higher vocational colleges in north of Guangdong were invited to evaluate the feasibility of development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong. The results are shown in the following table:

Table 4.23 List of Strategies Evaluation Experts

No.	Position
Expert 1	Professor of Heyuan Polytechnic
Expert 2	Professor of Guangdong Meizhou Polytechnic
Expert 3	Professor of Qingyuan Polytechnic
Expert 4	Professor of Guangdong Songshan Polytechnic
Expert 5	Professor of Luoding Polytechnic

Table 4.24 Average Value and Standard Deviation of Expert Evaluation of development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong

Assessment checklist	Feasibility		
	\bar{X}	S.D.	Level
1. Strategies for clarifying evaluation subject (personnel)	4.44	0.38	High
1.1 Possess expertise in evaluation	4.60	0.45	Highest
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	0.40	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	Highest
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

The data showed that experts' overall evaluation of the feasibility of the strategies is at the high level ($\bar{x}=4.34$), indicating that the strategies have a high feasibility. 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 are at high level.

Chapter 5

Conclusion Discussion and Recommendations

The study of strategies for the comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong has three research objectives: 1) To study the current situation of the comprehensive quality evaluation system for higher vocational colleges students; 2) To provide strategies for improving the comprehensive quality evaluation system for higher vocational colleges students; 3) To evaluate the feasibility of the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students. The comprehensive quality evaluation system for higher vocational colleges students includes 4 aspects: 1) evaluation subject (personnel), 2) evaluation contents, 3) evaluation method, 4) evaluation results feedback and application.

To achieve these research objectives, this study used the questionnaire survey, using the way of online distribution, and determined sample size with reference to Krejci and Morgan, and distributed questionnaires to teachers from 5 higher vocational colleges in north of Guangdong, and the 382 effective questionnaires were recovered. At the same time, the structured interview was conducted to interview 5 teachers and 5 administrators from 5 higher vocational colleges in north of Guangdong. In the study, the statistical methods used to analyze the data include frequency, percentage, average value and standard deviation. The conclusion, discussion and recommendations of this study are as follows:

Conclusion

Through the research on the development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong, the researcher summarizes the conclusion into 3 parts, details are as follows:

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

According to the first research objective, the current situation of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong mainly includes four variables: evaluation subject (personnel), evaluation contents, evaluation method and evaluation results feedback and application. Based on the statistical analysis of the questionnaire survey data, it was found that the average value of the comprehensive quality evaluation system for higher vocational colleges students in Guangdong in four aspects was all at high level. Considering the results of this study aspects ranged from the highest to lowest level were as follow: the highest level was evaluation method, followed by evaluation results feedback and application, and the lowest level was evaluation subject (personnel).

Evaluation subject (personnel) was at high level. Considering the results of this study aspects ranged from the highest to lowest level were as follow: the highest level was “In the process of students' comprehensive quality evaluation in higher vocational colleges, it is necessary to set up a multi-component evaluation group composed of counselors, teachers' representatives and student representatives to carry out student evaluation”, followed by “In the process of evaluating the comprehensive quality of students in higher vocational colleges, it is necessary to establish a special evaluation group”, and the lowest level was “The third-party evaluation plays a pivotal role in the assessment of students' overall quality in higher vocational colleges”.

Evaluation contents was at high level. Considering the results of this study aspects ranged from the highest to lowest level were as follow: the highest level was “The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that students should possess) should include 5 aspects”, followed by “The current student evaluation content of the higher vocational colleges can accurately and comprehensively assess your overall quality”.

Evaluation method was at medium level. Considering the results of this study aspects ranged from the highest to lowest level were as follow: the highest level was "The assessment methods for students' comprehensive quality in higher vocational colleges should encompass testing, performance evaluation, competitive activities, growth assessment, and other relevant measures", followed by "Course evaluation should adopt the evaluation methods of final examination, course work, daily subject evaluation and experimental practice", and the lowest level was "The comprehensive student evaluation in your school adopts the method of testing, performance evaluation, competition activities".

Evaluation results feedback and application was at high level. Considering the results of this study aspects ranged from the highest to lowest level were as follow: the highest level was "After comprehensive quality evaluation, communication and feedback should be set up", followed by "In the process of student evaluation, it is necessary to set up a supervisory department to supervise and review", and the lowest level was "The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable".

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

According to the second research objective, the researcher creates strategies for the comprehensive quality evaluation system for higher vocational colleges students in Guangdong from four aspects based on the statistical analysis of the questionnaire survey data and interview, with a total of measures. There are measures for clarifying evaluation subject (personnel), measures for optimizing evaluation contents, measures for improving evaluation method, and measures for optimizing evaluation results feedback and application. The details are as follows:

Strategies for clarifying evaluation subject (personnel) include 5 measures:

- 1) Possess expertise in evaluation;
- 2) Have experience in evaluation work;
- 3) strengthen training;
- 4) Diversity of participants,
- 5) Students as the main body.

Strategies for optimizing evaluation contents include 5 measures: 1) In line with student development; 2) Strengthen multiple abilities; 3) Clarify standards and systems; 4) Operable; 5) Adapt to social development needs.

Strategies for improving evaluation method of conduct include 5 measures: 1) process evaluation; 2) Result evaluation; 3) Adopt intelligent evaluation system; 4) Various evaluation tools; 5) Various evaluation methods.

Strategies for optimizing evaluation results feedback and application include 5 measures: 1) Timely feedback on results; 2) Hold regular feedback meetings; 3) Increase tripartite exchanges; 4) Provide personalized feedback; 5) Leverage data analytics.

Part 3: The feasibility of strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong

According to the third research objective, the researchers invited 5 experts to evaluate the feasibility of strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

The data analysis results show that experts' overall evaluation of the feasibility of the strategies was at high level with the average value, which indicates that the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong have a high feasibility.

In terms of strategies for clarifying evaluation subject (personnel), the feasibility of strategies for clarifying evaluation subject (personnel) was at high level with the average value, which indicates that the strategies for clarifying evaluation subject (personnel) have a high feasibility.

In terms of strategies for optimizing evaluation contents, the feasibility of strategies for optimizing evaluation contents was at high level with the average value, which indicates that the strategies for optimizing evaluation contents have a high feasibility.

In terms of strategies for improving evaluation method, the feasibility of strategies for improving evaluation method was at high level with the average value,

which indicates that the strategies for improving evaluation method have a high feasibility.

In terms of strategies for optimizing evaluation results feedback and application, the feasibility of strategies for optimizing evaluation results feedback and application was at high level with the average value, which indicates that the strategies for optimizing evaluation results feedback and application have a high feasibility.

Discussion

The research on the strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong. The researcher summarizes the discussion into 3 parts, details are as follows:

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

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

In terms of evaluation subjects (personnel), the 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 not yet reached the highest level. The fundamental reason for this situation is that the college does not fully consider the interests of students. In the reform of educational evaluation in higher vocational colleges, students especially need to actively participate in student evaluation. Many higher vocational colleges have more than 10,000 students and cannot carry out evaluation work with students as the main body. This virtually increases the difficulty of student evaluation and increases investment costs.

However, higher vocational colleges 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 easily ignored, which affects the initiative of students to participate in student comprehensive quality evaluation. This is not consistent with the view of Li Yimei. (2019), Zhao Yue. (2015), Wang Wei. (2013), and Yang Qingjian. (2014). "Take students as the main body of evaluation and let students participate in the entire evaluation process." It is true that it is necessary to emphasize students as the main body and actively participate in the reform of students' comprehensive quality evaluation. However, due to students' lack of professional evaluation knowledge and evaluation work experience, colleges often ignore students during the evaluation operation process and cannot satisfy students as the main body to participate in evaluation. Work. In the student comprehensive quality evaluation system, students as the evaluation subjects can satisfy psychological needs such as sense of achievement, belonging, respect and recognition. Therefore, we cannot simply list students as evaluation subjects (personnel) but must fully consider students' interests and needs and provide students with reasonable satisfaction. This is consistent with the starting point of Mc Mahon S D, Rose D S, and Parks M. (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 not reached the highest level. To sum up, there are two main reasons: 1) From the perspective of students, students believe that the evaluation content does not truly reflect their own comprehensive quality, and the evaluation content is not comprehensive enough. There is no 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 the view of Yao Xiaoyu. (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. This is consistent with the view of Duan Meiling. (2019). In short, the differences in the evaluation content itself and the lack of practical and specific guidance lead to students' unclear understanding of the content of students' comprehensive quality evaluation, which in turn affects the development of students' comprehensive quality abilities.

In terms of evaluation methods, the evaluation methods of the comprehensive quality evaluation system for students in higher vocational colleges in Guangdong Province are at a high level but have not reached 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 Yongjia. (2020). Zhou Yongjia once pointed out that although the evaluation system has been improved to a certain extent, in actual operation, the evaluation methods and tools are still unreasonable, resulting in the inability to fully reflect students' true abilities. This view has been basically recognized by current Chinese scholars. However, in addition to these reasons, current evaluation methods are too focused on the examination of theoretical knowledge, which brings some significant limitations. First, the examination of theoretical knowledge mainly relies on written examinations, written examinations and other forms. Although this method can measure students' mastery of basic theory, it often ignores practical ability, which is not fully consistent with the goals and positioning of vocational education. The educational goal of higher vocational colleges is 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 have deficiencies in 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 at a high level but has not reached the highest level. Investigating the reason, the main reason has a lot to do with the way the evaluation results are presented and the insufficient performance of teachers in the evaluation. This is consistent with the views of Li Hua. (2022) and Chen Guomin. (2014). In view of 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 are still not fully utilized, which affects the effective application of evaluation results. Teachers should be encouraged to actively participate in the evaluation process, use evaluation results to guide teaching, and conduct in-depth communication with students to help students better understand the feedback content. Therefore, in the application of evaluation results, students and teachers should actively and objectively face the evaluation results and use the results rationally. This is consistent with the views of Zhou Kui, Li Chao, and Zhu Cairong. (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 comprehensive support for optimizing evaluation results feedback and application.

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

In terms of strategies for clarifying evaluation subject (personnel), to improve the level of evaluation subject (personnel), the researcher has proposed a total of 5 measures in terms of strategies for clarifying evaluation subject (personnel). The measure for Diversity of participants is consistent with the view of Zhao Yue.

(2015).and Chen Pingjing. (2022). The measure for Students as the main body is consistent with the view of Zhao Yue. (2015).and Wang Wei. (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) Select people with evaluation experience to participate in the evaluation work, 3) Select people with evaluation expertise to participate in the evaluation work.

In terms of strategies for optimizing evaluation content, to optimize evaluation content, researchers have proposed a total of 5 measures in terms of strategies for optimizing evaluation content. Among them, higher vocational colleges should take measures to strengthen students' multiple abilities, and Yao Xiaoyu. (2018) is consistent with the view. The evaluation standards and systematic measures for higher vocational colleges are consistent with the views of Zhang Yuan (2018) and Shi Ping (2014). The operable measures are consistent with Li Hailin. (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 the requirements of student development and adapt to the needs of social development. However, the economic development of various cities in Guangdong is different, and the development of higher vocational colleges is also different. There are large differences, which brings great difficulties to us in achieving unified evaluation content. Therefore, the research of many scholars, including the solutions proposed in this study, is only a guide in this direction. Therefore, we still need to make more efforts and exploration in this area.

In terms of Strategies for improving evaluation method, for improving evaluation method, In the aspect of Strategies for improving evaluation method, the researchers put forward 5 measures. Among them, according to Karl parson. (1901), Zadeh, LA. (1965), Thomas Saaty, L. (1971), Deng Julong. (1985), Goodfellow, E.A. (2016) put forward measures such as process evaluation, result evaluation, multiple

evaluation tools and multiple evaluation methods. According to Wang Kai. (2015), researchers put forward measures to adopt 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 Jie. (2022), Wang Wenwen. (2020), Zhao Yue. (2015), Yang Jun. (2014), and Wu Liangzhou. (2013), researchers suggest timely feedback of evaluation results, regular feedback meetings, enhanced communication among the three parties, and personalized feedback. In addition, according to Zhou Kui, Li Chao The main points the evaluation results are mainly provided for students' own use, and a low teacher to effectively supervise and guide students' continued development& Zhu Cairong. (2023), researchers propose measures of using data analysis.

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

In terms of strategies for clarifying evaluation subject (personnel), the level of the feasibility was at high level. This is because, On the one hand, college students have physically and psychologically matured, and they have their own 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 Wei's (2013) opinion. On the other hand, students expect a diversified group of evaluators, which is related to the view of Mc Mahon S D, Rose D S, and Parks M. (2004).

In terms of strategies for optimizing evaluation contents, the level of the feasibility was at high level. This is because, China is currently undergoing educational evaluation reform, which requires a comprehensive evaluation of students, focusing on their overall development in terms of morality, intelligence, physical fitness, aesthetics, and labor. This aligns with the views of Guo Bin (2018), who emphasizes the importance of holistic development. The educational philosophy of vocational colleges, as well as the need for vocational education to align with industry

development, also requires continuous exploration and improvement of evaluation content in practice.

In terms of Strategies for improving evaluation method, the level of the feasibility was at high level. This is because, 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 related to the view of Yu Kang. (2017). Additionally, improving the evaluation method can effectively guide and motivate students' development in the right direction, which related to the view of Wang Kai. (2015).

In terms of Strategies for optimizing evaluation results feedback and application, the level of the feasibility was at high level. This is because, compared with ordinary universities, vocational colleges have a closer relationship with enterprises and need more frequent communication and connection in the aspect of 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 is related to the viewpoints of Wang Wenwen. (2020) and Zhao Yue. (2015).

Recommendations

In terms of evaluation subject (personnel), the survey results show that the lowest score is "The third-party evaluation plays a pivotal role in the assessment of students' overall quality in higher vocational colleges." This indicates that in the evaluation of students in higher vocational colleges, the involvement of third-party evaluation is relatively rare, and the schools also have insufficient recognition of the importance of third-party evaluation. Therefore, the researcher puts forward the following suggestions for the third-party participation in the evaluation of high vocational colleges: 1) The school should actively invite third-party organizations, such as enterprises, to participate in the evaluation of students. 2) The school should provide necessary support for the participation of third-party organizations in the

evaluation of students, allowing them to fully play their own advantages within a certain scope, so that students can fully recognize the importance of third-party evaluation. 3) The school should use the participation of third-party organizations in the evaluation to optimize its own evaluation system.

In terms of evaluation content, the survey results show that the lowest score was "The current student evaluation content of the higher vocational colleges can accurately and comprehensively assess your overall quality". This shows that the content of students' evaluation in higher vocational colleges in north of Guangdong can reflect the real situation of students in general, but the requirements of students' evaluation content need to be further refined. Therefore, the researchers put forward the following suggestions on the evaluation content of higher vocational colleges in north of Guangdong: 1) colleges should clarify the index content of morality, intelligence, physical beauty and labor, and refine each small index of morality, intelligence, physical beauty and labor in combination with the characteristics of students in higher vocational colleges, so as to make the evaluation content more appropriate to students' needs, promote students to better adapt to the requirements of social development, and enable students to develop comprehensively from knowledge, ability and quality. 2) In terms of evaluation content, the five higher vocational colleges can learn from each other.

In terms of evaluation methods, the survey results show that the lowest score was "The comprehensive student evaluation in your school adopts the method of testing + performance evaluation + competition activities". This shows that in higher vocational colleges, students have low satisfaction with the evaluation method adopted by the school, and it is still necessary to further improve the evaluation method of the school. Therefore, the researchers put forward the following suggestions to the five higher vocational colleges: 1) The application of the evaluation method of students' comprehensive quality should be given the initiative to students, so that students can choose the method suitable for their development requirements, so that students can accept and actively participate in the evaluation. 2) The evaluation method should be diversified, and new methods can be constantly

tried and applied in practice, and continuous experiments can finally form the evaluation method satisfactory to students.

In terms of evaluation results feedback and application, the survey results show that the lowest score was for "The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable." This shows that students expect teachers to lack the sense of active participation in the application of evaluation results, and higher vocational colleges need to further improve this aspect. Therefore, the researchers put forward the following suggestions to the five higher vocational colleges: 1) Teachers should take the evaluation results as an important reference for testing daily education, teaching and student management, so that teachers can effectively supervise and guide the sustainable development of students and guide the healthy growth of students. 2) The college should take the evaluation results and feedback of students as a part of the evaluation of teachers, so that teachers can actively apply the evaluation results of students. The evaluation results can also be fed back to students in a timely manner.

Future Researches

The development strategy of the comprehensive evaluation system for students' overall quality constitutes a crucial aspect of the educational evaluation reform in the new era and holds highly significant practical implications for enhancing students' comprehensive capabilities and elevating the overall development level of the colleges. This research undertakes an investigation and analysis of the comprehensive evaluation system for students' overall quality in vocational colleges in Guangdong Province. Through empirical studies, it examines the current situation of the comprehensive evaluation system for students' overall quality in vocational colleges from aspects such as evaluation subjects (personnel), evaluation contents, evaluation methods, evaluation results feedback and application. It also proposes effective development strategies, enabling the administrators of five vocational colleges in northern Guangdong to gain a more comprehensive understanding of the status of the comprehensive evaluation system for students' overall quality, reform

the existing management deficiencies, better deepen and consolidate the achievements of educational evaluation reform, and promote the enhancement of students' comprehensive abilities, which holds certain guiding significance.

The comprehensive evaluation system of vocational college students is a complex and important research topic, involving many deeply rooted issues for schools and government. Therefore, this study is only a useful, preliminary, and superficial attempt at the comprehensive evaluation system of vocational college students in northern Guangdong Province. Due to the researcher's personal thinking style, time, ability, etc., this study still has some shortcomings. Therefore, future research can consider the following two aspects:

1. Expand the scope of the research. This study only studies the comprehensive quality evaluation system of students in higher vocational colleges in north of Guangdong. In the future, the scope of the study can be expanded, and a comparative study between the Pearl River Delta and other areas of Guangdong can be conducted.

2. Deepen the content of the research. The discussion of the current situation of the comprehensive quality evaluation system of students is limited to the study of the influencing factors of the comprehensive quality evaluation system of students, which can be extended to the in-depth study of student development and student growth in the future.

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Appendices

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

List of Specialists Invitation for IOC Verification

NO.	Name	Position
1	Liu Yu	Professor of Heyuan Polytechnic
2	Liao Yuanbing	Professor of Heyuan Polytechnic
3	Chollada Pongpattanayothin	Associate Professor of Bansomdejchaopraya Rajabhat University
4	Thanida Sutcharittham	Doctor of Bansomdejchaopraya Rajabhat University
5	Patchareeporn Bangkeaw	Assistant Professor of Bansomdejchaopraya

List of Specialists Invitation for Strategies Evaluation

The following lists were invited as an evaluation expert to evaluate the feasibility of strategies for improving the comprehensive quality evaluation system for higher vocational colleges students in Guangdong

NO.	Name	Position
1	Wen Wenni	Professor of Heyuan Polytechnic
2	Luo Zhiqiang	Professor of Guangdong Meizhou Polytechnic
3	Feng Tao	Professor of Qingyuan Polytechnic
4	Yang Yanhong	Professor of Guangdong Songshan Polytechnic
5	Mo Qiuchan	Professor of Luoding Polytechnic

Appendix B
Official Letter

MHESI 0643.14/ 1011



Bansomdejchaopraya
Rajabhat University
1061 Soi Itsaraphap 15,
Itsaraphap Road, Hiranruchi,
Thonburi, Bangkok, Thailand 10600

17 April 2024

Subject: Invitation to validate research instrument

Dear Assoc. Prof. Dr. Chollada Pongpattanayothin

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong".

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully

(Assistant Professor Akaranun Asvarutpokin)

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Subject: Invitation to validate research instrument

Dear Asst.Prof.Dr.Patchareepom Bangkeaw

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong".

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Subject: Invitation to validate research instrument

Dear Dr.Thanida Sutcharittham

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong".

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

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Subject: Invitation to validate research instrument

Dear Prof. Liu Yu

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong".

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

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Yours faithfully



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17 April 2024

Subject: Invitation to validate research instrument

Dear Prof.Liao Yuanbing

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong".

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully

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17 April 2024

Subject: Invitation to interview

Dear Zhang Wen

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

- | | |
|--|---------------|
| 1. Associate Professor Dr. Narongwat Mingmit | Major Advisor |
| 2. Assistant Professor Dr. Pawich Phon-ngam | Co-Advisor |
| 3. Assistant Professor Dr. Phisanu Bangkheow | Co-Advisor |

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Thank you for your kind considerations.

Yours faithfully,

Assistant Professor Dr. Tanaput Chanchaoren
(Vice Dean of Graduate School for Dean of Graduate School)

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17 April 2024

Subject: Invitation to interview

Dear Chen Yanfang

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to interview

Dear Luo Zhiqiang

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to interview

Dear Zeng Wanling

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to interview

Dear Liu Ying

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17 April 2024

Subject: Invitation to interview

Dear Sha Yeqing

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to interview

Dear Feng Yaoqiang

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17 April 2024

Subject: Invitation to interview

Dear Li Yusha

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Bansomdejchaopraya
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17 April 2024

Subject: Invitation to interview

Dear Chen Qingyun

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to interview

Dear Huang Xinhong

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Zhang Wen

Attachment: A focus group discussion schedule

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert
Dear Professor Chen Yanfang
Attachment: A focus group discussion schedule

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Luo Zhiqiang

Attachment: A focus group discussion schedule

Mrs. Wu Ziyuan is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong", supervised by the thesis advisory committee as follows.

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Zeng Wanling

Attachment: A focus group discussion schedule

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Liu Ying

Attachment: A focus group discussion schedule

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert
Dear Professor Sha Yeqing
Attachment: A focus group discussion schedule

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Feng Yaoqiang

Attachment: A focus group discussion schedule

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Li Yusha

Attachment: A focus group discussion schedule

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17 April 2024

Subject: Invitation to join a focus group discussion as an expert

Dear Associate professor Chen Qingyun

Attachment: A focus group discussion schedule

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17 April 2024

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Dear Professor Huang Xinhong

Attachment: A focus group discussion schedule

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17 Sept. 2024

Subject Request for evaluation of strategy Professor
Dear Wen Wenni Professor of Heyuan Polytechnic
Attachment Evaluation sheets

Regarding Mrs Wu Ziyuan with student code 6473139015, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong." The thesis committee is as follows:

- | | |
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| 1. Associate Professor Dr. Narongwat Mingmit | Major Advisor |
| 2. Assistant Professor Dr.Pawich PhoIngam | Co-advisor |
| 3. Assistant Professor Dr. Phisanu Bangkheow | Co-advisor |

Developing strategies for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong is the focus of this study. The researchers know that you have experience in this area, so they hope that you can assist in evaluating these strategies. The researchers are eager to hear your suggestions for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong. Thank you very much for your positive response.

Thank you for your kind considerations.

Yours faithfully

(Assistant Professor Dr.Nukul Sarawong)
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17Sept 2024

Subject Request for evaluation of strategy Professor
Dear Luo Zhiqiang Professor of Guangdong Meizhou Polytechnic
Attachment Evaluation sheets

Regarding Mrs. Wu Ziyuan with student code 6473139015, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong." The thesis committee is as follows:

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17Sept 2024

Subject Request for evaluation of strategy Professor
Dear Feng Tao Professor of Qingyuan Polytechnic
Attachment Evaluation sheets

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|--|---------------|
| 1. Associate Professor Dr. Narongwat Mingmit | Major Advisor |
| 2. Assistant Professor Dr.Pawich Pholngam | Co-advisor |
| 3. Assistant Professor Dr. Phisanu Bangkheow | Co-advisor |

Developing strategies for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong is the focus of this study. The researchers know that you have experience in this area, so they hope that you can assist in evaluating these strategies. The researchers are eager to hear your suggestions for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong. Thank you very much for your positive response.

Thank you for your kind considerations.

Yours faithfully

(Assistant Professor Dr.Nukul Sarawong)
Dean of Graduate School

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Bansomdejchaopraya
Rajabhat University
1061 Soi Itsaraphap 15,
Itsaraphap Road, Hiranruchi,
Thonburi, Bangkok, Thailand
10600

17Sept 2024

Subject Request for evaluation of strategy Professor
Dear Yang Yanhong Professor of Guangdong Songshan Polytechnic
Attachment Evaluation sheets

Regarding Mrs. Wu Ziyuan with student code 6473139015, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong." The thesis committee is as follows:

- | | |
|--|---------------|
| 1. Associate Professor Dr. Narongwat Mingmit | Major Advisor |
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Developing strategies for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong is the focus of this study. The researchers know that you have experience in this area, so they hope that you can assist in evaluating these strategies. The researchers are eager to hear your suggestions for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong. Thank you very much for your positive response.

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Itsaraphap Road, Hirannuchi,
Thonburi, Bangkok, Thailand
10600

17Sept.2024

Subject Request for evaluation of strategy Professor
Dear Mo Qiuchan Professor of Luoding Polytechnic
Attachment Evaluation sheets

Regarding Mrs. Wu Ziyuan with student code 6473139015, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong." The thesis committee is as follows:

- | | |
|--|---------------|
| 1. Associate Professor Dr. Narongwat Mingmit | Major Advisor |
| 2. Assistant Professor Dr.Pawich Pholngam | Co-advisor |
| 3. Assistant Professor Dr. Phisanu Bangkheow | Co-advisor |

Developing strategies for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong is the focus of this study. The researchers know that you have experience in this area, so they hope that you can assist in evaluating these strategies. The researchers are eager to hear your suggestions for the sustainable development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong. Thank you very much for your positive response.

Thank you for your kind considerations.

Yours faithfully

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Appendix C
Research Instrument



Questionnaire

Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong

Direction:

1. This questionnaire is about the current situation and supporting factors that the student comprehensive quality evaluation system strategy in guangdong. The objectives of this research were to explore the student comprehensive quality evaluation system strategy in guangdong, and to develop the strategies for Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong, and to evaluate the strategies for the student comprehensive quality evaluation system in guangdong.

2. The questionnaire about the current situation and supporting factors that the student comprehensive quality evaluation system strategy in guangdong, which provided into two parts. Part one is personal information of respondents and part two is survey about the current situation of Student comprehensive quality evaluation system strategy in guangdong, total 21 questions.

Thank you for your cooperation in answering this questionnaire.

Mrs. Wu Ziyuan
Bansomdejchaopraya Rajabhat University

Part I: Basic information

Your Gender

 Male female

Your grade

 Freshman sophomore Junior

Your major

 Liberal Arts Science engineering music, sports, and art
PartII: Specific issues

Direction: Please read the following items carefully and select the extent to the current situation of Student comprehensive quality evaluation system strategy based on your actual situation and experience. Rating Scale of Likert Scale 5 level details as below:

1 = lowest level, 2 = low level, 3 = moderate level, 4 = high level, 5 = highest level

Factor	Questions	Level					Remarks
		1	2	3	4	5	
1.Evaluation subject (personnel)	1.In the process of evaluating the comprehensive quality of students in higher vocational colleges, it is necessary to establish a special evaluation group.						
	2.In the process of students' comprehensive quality evaluation in higher vocational colleges, it is necessary to set up a multi-component evaluation group composed of counselors, teachers' representatives and student representatives to carry out student evaluation.						
	3.Existing evaluation team members from the school are acceptable.						

Factor	Questions		Level					Remarks	
			1	2	3	4	5		
		4.The student group plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.							
		5.The teachers group plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.							
1.Evaluation subject (personnel)		6.The practice and employers play a pivotal role in the assessment of students' overall quality in higher vocational colleges.							
		7.The third-party evaluation plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.							
2.Evaluation contents	8.The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that students should possess) should include 5 aspects	Moral Education	Shift platform						
			Party school training						
			Party member						
			Volunteer Service						
			Social practice						
			student backbone						
			ideological and political contest						
		Intellectual education	Course achievement						
			Innovation and entrepreneurship competition						
			Entrepreneurial practice						
	Skills competition								

Factor	Questions			Level					Remarks
				1	2	3	4	5	
2.Evaluation contents	8.The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that students should possess) should include 5 aspects	Sports	Physical fitness test up to standard						
			Exercise regularly						
			Take part in a sports match						
		Aesthetic Education	Participate in the Aesthetic Education Society						
			Participate in aesthetic education competitions						
			Participate in literary performances						
		Labor education	Participate in dormitory labor						
			Participate in public sector labor						
			To participate in voluntary labor services						
		3.Evaluation method	10.The assessment methods for students' comprehensive quality in higher vocational colleges should encompass testing, performance evaluation, competitive activities, growth assessment, and other relevant measures.						

Factor	Questions	Level					Remarks
		1	2	3	4	5	
	11.The comprehensive student evaluation in your school adopts the method of testing + performance evaluation + competition activities.						
	12.Course evaluation should adopt the evaluation methods of final examination, course work, daily subject evaluation and experimental practice.						
	13.Your school's curriculum evaluation adopts the evaluation method of exam + homework + experiment or practical activity.						
3.Evaluation method	14.The evaluation of extracurricular activities should adopt the evaluation methods of written examination, credit hours, extra points for activities, and growth record cards.						
	15.The evaluation of extracurricular activities in your school adopts the method of credits + volunteer hours + activity bonus points.						
4.Evaluation results feedback and application	16.After comprehensive quality evaluation, communication and feedback should be set up.						
	17.Students, counselors, class teachers, teachers, administrator of relevant departments and other personnel should participate in the communication and feedback link after evaluation.						
	18.The results of comprehensive quality evaluation are presented in the form of scores, grade rankings and comprehensive comments.						
	19.The results of comprehensive quality evaluation can be applied to the evaluation of excellence, recommendation of employment, study, party membership and so on.						

Factor	Questions	Level					Remarks
		1	2	3	4	5	
	20.The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable.						
	21.In the process of student evaluation, it is necessary to set up a supervisory department to supervise and review.						

Thank you again for your participation and wish you all the best!



Interview Form Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong

Direction:

1. This interview form is about factors of the current situation and supporting factors the development of comprehensive quality evaluation system strategies for higher vocational colleges students in guangdong. The objectives of this research were to explore the components of comprehensive quality evaluation system strategies for higher vocational colleges students in guangdong, and to develop the strategies for sustainable development of comprehensive quality evaluation system strategies for higher vocational colleges students in guangdong, and to evaluate the strategies for comprehensive quality evaluation system for higher vocational colleges students in guangdong.

2. This Interview form was designed for experts to review. It was divided into 2 part 8 questions and recommendations.

3. Your comments on interview form will be useful for the development of management strategies to promote development of strategies for sustainable development of Chinese dance teacher leadership in Shandong Province. Responding to this questionnaire will have no impact per you individually. The proposed data will be of an overview and the researcher aims to use the data for research purposes only.

Thank you for your support.

Mrs. Wu Ziyuan

Bansomdejchaopraya Rajabhat University

Part I: Personal Information of respondents

1. Gender

 Male Female

2. work experience in college(years)

 ≤15 16-19 ≥20

3. job title

 Associate professor Professor

4. Position

 administrators Teacher
Part II: The factors promoting development of comprehensive quality evaluation system strategies for higher vocational colleges students in Guangdong

Evaluation subject (personnel)
1.What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?
2.What are the suggestions for the comprehensive quality evaluation personnel?
Evaluation contents
3.What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?
4.What are your suggestions for the evaluation content?
Evaluation method
5.What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

6. What are your suggestions on the evaluation method?
Evaluation results feedback and application
7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?
8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

Suggestion:
.....
.....



**Assessment form for validity of Interview Form the factors improving the
comprehensive quality evaluation system for higher vocational colleges students
in Guangdong**

Direction:

1.This assessment form for validity of interview form of the factor development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong is form for experts to consider the consistency of the questionnaire and take suggestion. It was as part of a doctoral dissertation of educational administration in Bansomdejchaopraya Rajabhat University, Thailand. The objectives of this research were to explore the comprehensive quality evaluation system for higher vocational colleges students in Guangdong, and to develop the strategies for comprehensive quality evaluation system for higher vocational colleges students in Guangdong, and to evaluate the strategies for comprehensive quality evaluation system for higher vocational colleges students in Guangdong.

2.This assessment form for validity of questionnaire was divided into 2 part, 8 questions and suggestion.

3.The evaluation of the effectiveness of your test form will help to formulate management strategies and improve the strategy of the comprehensive quality evaluation system of students in higher vocational colleges in Guangdong. Answering this survey will have no personal impact on you. The proposed data will be an overview, and the researchers aim to use the data for research purposes.

Thank you for your cooperation in answering this assessment form for validity.

Mrs. Wu Ziyuan
Bansomdejchaopraya Rajabhat University

Part I: Personal Information of respondents

1. Gender

Male Female

2. work experience in college(years)

≤15 16-19 ≥20

3. job title

Associate professor Professor

4. Position

administrators Teacher

Part II: This assessment form for validity of interview factors forms of influencing the Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong

Direction: Please consider the consistency of the factors of influencing the Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong. After considering it, please check in the corresponding box. Use the following criteria for consideration.

Rating is +1. There is an opinion that “Corresponds to definition.”

Rating is 0. There is an opinion that “Not sure it corresponds to definition.”

Rating is -1. There is an opinion that “Inconsistent with definition.”

Suggestions.....

Factor	Questions	Assessmet result			Remarks Remarks
		-1	0	+1	
Evaluation subject (personnel)	1.Possess expertise in evaluation				
	2. Have experience in evaluation work				
	3. strengthen training				
	4. Diversity of participants				
	5. Students as the main body				
Strategies for optimizing evaluation contents	1.In line with student development				
	2.Strengthen multiple abilities				
	3. Clarify standards and systems				
	4. Operable				
	5.Adapt to social development needs				
Strategies for improving evaluation method	1. process evaluation				
	2. Result evaluation				
	3.Adopt intelligent evaluation system				
	4. Various evaluation tools				
	5.Various evaluation methods				
Strategies for optimizing evaluation results feedback and application	1.Timely feedback on results				
	2.Hold regular feedback meetings				
	3.Increase tripartite exchanges				
	4.Provide personalized feedback				
	5. Leverage data analytics				



Evaluation Form for Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong

Direction:

1.This evaluation form for validity of interview form of the factors Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong is form for experts to consider the consistency of the questionnaire and take suggestion. It was as part of a doctoral dissertation of educational administration in Bansomdejchaopraya Rajabhat University, Thailand. The objectives of this research were to explore the comprehensive Quality Evaluation System Strategies for Higher Vocational Colleges Students in Guangdong, and to develop the strategies for comprehensive Quality Evaluation System of Higher Vocational Colleges Students in Guangdong, and to evaluate the strategies for comprehensive Quality Evaluation System of Higher Vocational Colleges Students in Guangdong.

2. This questionnaire validity evaluation form is centered around 8 aspects, including all strategies.

3.Your comments on evaluation form for validity of interview form will be useful for the development of management strategies to promote development of strategies for comprehensive Quality Evaluation System of Higher Vocational Colleges Students in Guangdong. Responding to this questionnaire will have no impact per you individually. The proposed data will be of an overview and the researcher aims to use the data for research purposes only.

Thank you for your cooperation in answering this evaluation form for validity.

Mrs. Wu Ziyuan

Bansomdejchaopraya Rajabhat University

Instruction:

The tool used this time is a questionnaire to evaluate strategies for comprehensive Quality Evaluation System of Higher Vocational Colleges Students in Guangdong.

Please consider the questionnaire to evaluate all aspects of strategies for comprehensive Quality Evaluation System of Higher Vocational Colleges Students in Guangdong.

Please check each comment box, the score is as follows:

5 indicates the highest feasibility.

4 indicates high feasibility.

3 indicates average feasibility.

2 indicates low feasibility.

1 indicates the lowest feasibility.

Evaluation checklist	Feasibility				
	5	4	3	2	1
Evaluation subject (personnel)					
1. Possess expertise in evaluation					
2. Have experience in evaluation work					
3. strengthen training					
4. Diversity of participants					
5. Students as the main body					
Strategies for optimizing evaluation contents					
1. In line with student development					
2. Strengthen multiple abilities					
3. Clarify standards and systems					
4. Operable					
5. Adapt to social development needs					
Strategies for improving evaluation method					
1. process evaluation					
2. Result evaluation					
3. Adopt intelligent evaluation system					
4. Various evaluation tools					

Evaluation checklist	Feasibility				
	5	4	3	2	1
5. Various evaluation methods					
Strategies for optimizing evaluation results feedback and application					
1. Timely feedback on results					
2. Hold regular feedback meetings					
3. Increase tripartite exchanges					
4. Provide personalized feedback					
5. Leverage data analytics					

Suggestions

.....

Appendix D

The Results of the Quality Analysis of Research Instruments

The Quality Analysis Results of Research Instruments

The consistency evaluation results of questionnaire survey on the current situation of Sustainable development of Chinese dance teacher leadership in Shandong Province.

1. The quality analysis results of Questionnaire

clause	The current situation of the student comprehensive quality evaluation system strategy in guangdong	Expert					IOC	Conclusion
		1	2	3	4	5		
Evaluation subject (personnel)								
1	In the process of evaluating the comprehensive quality of students in higher vocational colleges, it is necessary to establish a special evaluation group.	1	1	1	1	1	1.00	consistent
2	In the process of students' comprehensive quality evaluation in higher vocational colleges, it is necessary to set up a multi-component evaluation group composed of counselors, teachers' representatives and student representatives to carry out student evaluation.	1	1	1	1	1	1.00	consistent
3	Existing evaluation team members from the school are acceptable.	1	1	1	1	1	1.00	consistent
4	The student group plays a pivotal role in the assessment of students' overall quality in higher vocational	1	1	1	1	1	1.00	consistent

clause	The current situation of the student comprehensive quality evaluation system strategy in guangdong		Expert					IOC	Conclusion	
			1	2	3	4	5			
	colleges.									
5	The teachers group plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.		1	1	1	1	1	1.00	consistent	
Evaluation subject (personnel)										
6	The practice and employers play a pivotal role in the assessment of students' overall quality in higher vocational colleges.		1	1	1	1	1	1.00	consistent	
7	The third-party evaluation plays a pivotal role in the assessment of students' overall quality in higher vocational colleges.		1	1	1	1	1	1.00	consistent	
Evaluation contents										
8	The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that	Moral Education	Shift platform	1	1	1	1	1	1.00	consistent
			Party school training	1	1	1	1	1	1.00	consistent
			Party member	1	1	1	1	1	1.00	consistent
			Volunteer Service	1	1	1	1	1	1.00	consistent
			Social practice	1	1	1	1	1	1.00	consistent
			student backbone	1	1	1	1	1	1.00	consistent

clause	The current situation of the student comprehensive quality evaluation system strategy in guangdong			Expert					IOC	Conclusion
				1	2	3	4	5		
	The content of comprehensive quality evaluation of students in higher vocational colleges (that is, the quality that students should possess) should include 5 aspects		ideological and political contest	1	1	1	1	1	1.00	consistent
			Course achievement	1	1	1	1	1	1.00	consistent
		Intellectual education	Innovation and entrepreneurship competition	1	1	1	1	1	1.00	consistent
8		Intellectual education	Entrepreneurial practice	1	1	1	1	1	1.00	consistent
			Skills competition	1	1	1	1	1	1.00	consistent
		Sports	Physical fitness test up to standard	1	1	1	1	1	1.00	consistent
			Exercise regularly	1	1	1	1	1	1.00	consistent
			Take part in a sports match	1	1	1	1	1.00	consistent	
		ion	Education Society	1	1	1	1	1	1.00	consistent
			Participate in aesthetic education	1	1	1	1	1	1.00	consistent

clause	The current situation of the student comprehensive quality evaluation system strategy in guangdong			Expert					IOC	Conclusion
				1	2	3	4	5		
			competitions							
		Labor education	Participate dormitory labor	1	1	1	1	1	1.00	consistent
			Participate public sector labor	1	1	1	1	1	1.00	consistent
			To participate voluntary labor services	1	1	1	1	1	1.00	consistent
9	The current student evaluation content of the higher vocational colleges can accurately and comprehensively assess your overall quality.			1	1	1	1	1	1.00	consistent
Evaluation method										
10	The assessment methods for students' comprehensive quality in higher vocational colleges should encompass testing, performance evaluation, competitive activities, growth assessment, and other relevant measures.			1	1	1	1	1	1.00	consistent
11	The comprehensive student evaluation in your school adopts			1	1	1	1	1	1.00	consistent

clause	The current situation of the student comprehensive quality evaluation system strategy in guangdong	Expert					IOC	Conclusion
		1	2	3	4	5		
	the method of testing + performance evaluation + competition activities.							
12	Course evaluation should adopt the evaluation methods of final examination, course work, daily subject evaluation and experimental practice.	1	1	1	1	1	1.00	consistent
13	Your school's curriculum evaluation adopts the evaluation method of exam + homework + experiment or practical activity.	1	1	1	1	1	1.00	consistent
14	The evaluation of extracurricular activities should adopt the evaluation methods of written examination, credit hours, extra points for activities, and growth record cards.	1	1	1	1	1	1.00	consistent
15	The evaluation of extracurricular activities in your school adopts the method of credits + volunteer hours + activity bonus points.	1	1	1	1	1	1.00	Consistent
Evaluation method								
16	After comprehensive quality evaluation, communication and feedback should be set up.	1	1	1	1	1	1.00	consistent
17	Students, counselors, class teachers, teachers, administrator of	1	1	1	1	1	1.00	consistent

clause	The current situation of the student comprehensive quality evaluation system strategy in guangdong	Expert					IOC	Conclusion
		1	2	3	4	5		
	relevant departments and other personnel should participate in the communication and feedback link after evaluation.							
18	The results of comprehensive quality evaluation are presented in the form of scores, grade rankings and comprehensive comments.	1	1	1	1	1	1.00	consistent
19	The results of comprehensive quality evaluation can be applied to the evaluation of excellence, recommendation of employment, study, party membership and so on.	1	1	1	1	1	1.00	consistent
20	The influence of students' comprehensive quality evaluation on teacher education and teaching is favorable.	1	1	1	1	1	1.00	Consistent
21	In the process of student evaluation, it is necessary to set up a supervisory department to supervise and review.	1	1	1	1	1	1.00	consistent

2. The quality analysis results of Interview.

clause	The factors improving development	Expert					IOC	Conclusion
		1	2	3	4	5		
Evaluation subject (personnel)								
1	What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?	1	1	1	1	1	1.00	consistent
2	What are the suggestions for the comprehensive quality evaluation personnel?	1	1	1	1	1	1.00	consistent
Evaluation contents								
3	What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?	1	1	1	1	1	1.00	consistent
4	What are your suggestions for the evaluation content?	1	1	1	1	1	1.00	consistent
Evaluation method								
5	What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?	1	1	1	1	1	1.00	consistent
6	What are your suggestions on the evaluation method?	1	1	1	1	1	1.00	consistent
Evaluation results feedback and application								
7	What factors should affect the application and feedback of the comprehensive quality evaluation results of students in	1	1	1	1	1	1.00	consistent

clause	The factors improving development	Expert					IOC	Conclusion
		1	2	3	4	5		
	higher vocational colleges?							
8	What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?	1	1	1	1	1	1.00	consistent

3. The quality analysis results of evaluation form

clause	The factors improving development	Expert					IOC	Conclusion
		1	2	3	4	5		
Evaluation subject (personnel)								
1	Possess expertise in evaluation	1	1	1	1	1	1.00	consistent
2	Have experience in evaluation work	1	1	1	1	1	1.00	consistent
3	strengthen training	1	1	1	1	1	1.00	consistent
4	Diversity of participants	1	1	1	1	1	1.00	consistent
5	Students as the main body	1	1	1	1	1	1.00	consistent
Strategies for optimizing evaluation contents								
6	In line with student development	1	1	1	1	1	1.00	consistent
7	Strengthen multiple abilities	1	1	1	1	1	1.00	consistent
8	Clarify standards and systems	1	1	1	1	1	1.00	consistent
9	Operable	1	1	1	1	1	1.00	consistent
10	Adapt to social development needs	1	1	1	1	1	1.00	consistent
Strategies for improving evaluation method								
11	process evaluation	1	1	1	1	1	1.00	consistent
12	Result evaluation	1	1	1	1	1	1.00	consistent
13	Adopt intelligent evaluation system	1	1	1	1	1	1.00	consistent

clause	The factors improving development	Expert					IOC	Conclusion
		1	2	3	4	5		
14	Various evaluation tools	1	1	1	1	1	1.00	consistent
15	Various evaluation methods	1	1	1	1	1	1.00	consistent
Strategies for optimizing evaluation results feedback and application								
16	Timely feedback on results	1	1	1	1	1	1.00	consistent
17	Hold regular feedback meetings	1	1	1	1	1	1.00	consistent
18	Increase tripartite exchanges	1	1	1	1	1	1.00	consistent
19	Provide personalized feedback	1	1	1	1	1	1.00	consistent
20	Leverage data analytics	1	1	1	1	1	1.00	consistent

Reliability analysis of research instruments
Results of variable reliability correlation analysis

Reliability Scale: all variables

Case handling summary			
		N	%
case	effective	382	100
	Excluded ^a	0	0
	Total	382	100
a. List deletion based on all variables in this program.			

Reliability statistics		
Cronbach's Alpha	Based on standardized items Cronbachs Alpha	Number of terms
.987	.987	20

Interviewee

Interviewer 1

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

I think the composition of the personnel for the comprehensive evaluation of vocational college students should involve multiple parties to ensure the comprehensiveness and fairness of the evaluation. The personnel can consist of experts and teachers from both inside and outside the school, student representatives, and relevant industry personnel. School-based experts and teachers are familiar with the daily performance and academic status of students, student representatives can provide a peer's perspective, and industry personnel can offer professional insights into professional qualities. Through a diversified group of evaluators, the students' comprehensive qualities can be reflected more comprehensively.

2. What are the suggestions for the comprehensive quality evaluation personnel?

It is recommended that the evaluation team be composed of diverse and professional individuals. Firstly, ensure that the evaluation team members have relevant expertise and extensive experience in the field. Secondly, include representatives from different departments and disciplines to ensure a comprehensive and multi-dimensional evaluation. Additionally, regular training for the evaluation team members to enhance their evaluation skills and impartiality is necessary. Finally, consider introducing self-evaluation and peer evaluation by students to increase the authenticity and comprehensiveness of the evaluation.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

Determining the content of comprehensive evaluation of vocational college students should be based on their all-round development in terms of morality, intelligence, physical fitness, aesthetics, and labor. Specific content can include students' moral and ethical quality, professional knowledge and skills, physical fitness, artistic cultivation, and labor practical ability. In addition, the evaluation

should also consider the school's own characteristics and training objectives and pay attention to evaluating students' occupational quality and social adaptability. Through a comprehensive and multi-dimensional evaluation content, the students' overall quality level can be reflected.

4. What are your suggestions for the evaluation content?

It is suggested that students' actual performance and growth process should be emphasized in the evaluation content. For example, in terms of ideological and moral qualities, students' sense of social responsibility and moral judgment can be assessed; In terms of professional skills, the assessment can be combined with the completion of internships and projects; In terms of physical fitness and artistic accomplishment, it can be assessed through sports tests and artistic displays. In addition, the evaluation content of innovation ability and teamwork spirit can be added to fully reflect the comprehensive quality of students.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

The evaluation method to determine the comprehensive quality of students in higher vocational colleges should adopt multiple evaluation methods, including both quantitative evaluation and qualitative evaluation. Quantitative evaluation can be carried out through objective data such as grades, attendance, and participation in activities, while qualitative evaluation can be carried out through questionnaires, interviews, and daily performance records. In addition, we can also introduce scenario simulation, field investigation and other methods to fully understand the comprehensive quality of students. Through diversified evaluation methods, students' comprehensive quality can be evaluated more comprehensively and fairly.

6. What are your suggestions on the evaluation method?

It is suggested that the combination of process evaluation and result evaluation should be emphasized in the evaluation method. Process evaluation can know the development of students' comprehensive quality in real time through daily classroom observation, students' self-evaluation and mutual evaluation. The result evaluation can evaluate the performance of students in a specific period by means

of periodic examinations and works exhibition. In addition, we should pay attention to the scientificity and operability of evaluation methods to ensure the fairness and justice of evaluation.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

The evaluation results of students' comprehensive quality in higher vocational colleges can be applied to many aspects. First, it can be used for students' self-cognition and improvement to help students understand their own strengths and weaknesses. Secondly, it can be used as the basis for teachers' teaching improvement and help teachers adjust their teaching strategies. In addition, the evaluation results can also be used for students' reward and punishment assessment, graduation review and employment recommendation, etc., to provide reference for students' future development. Through rational application of the evaluation results, to promote the overall development of students.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

It is suggested to pay attention to timeliness and pertinence in feedback and application of evaluation results. First of all, students should be timely feedback evaluation results to help students understand their own comprehensive quality level. Secondly, a personalized training program should be developed based on the evaluation results to help students improve and improve. In addition, attention should be paid to the fairness and confidentiality of the evaluation results to avoid unfair treatment or psychological pressure due to the evaluation results. Through scientific and reasonable feedback and application of evaluation results, to promote the overall development and growth of students.

Interviewer 2

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

1. The evaluation personnel shall include representatives from various parties, which may be composed of school administrators, professional teachers,

student representatives, and enterprise representatives. This ensures comprehensiveness and objectivity of the evaluation.

2. What are the suggestions for the comprehensive quality evaluation personnel?

Evaluators should have high professional quality and professional ability, be familiar with the characteristics of higher vocational education, and need to receive regular training to improve evaluation ability. The responsibilities and work processes of evaluators should be clearly defined to ensure the standardization and impartiality of evaluation work.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

I think the content of comprehensive quality evaluation should cover moral, intellectual, physical, beauty, labor and other aspects, including students' ideology and morality, professional knowledge and skills, physical quality, aesthetic ability, practical ability, etc. The evaluation index should be set according to the goal of higher vocational colleges and the characteristics of students.

4. What are your suggestions for the evaluation content?

It is suggested that the evaluation content should be specific and quantified, and a clear evaluation standard and index system should be set up to ensure that the evaluation in each aspect has basis and operability. At the same time, the evaluation content should be updated with The Times and timely to reflect the development needs of society and the industry.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

The evaluation methods should be diversified and adopt a combination of quantitative and qualitative methods. It can be evaluated by questionnaire survey, interview, practical assessment, comprehensive review and other ways to fully understand the comprehensive quality of students.

6. What are your suggestions on the evaluation method?

It is suggested to adopt information means to improve the scientific and efficiency of evaluation. For example, big data analysis and intelligent evaluation

systems can be introduced. At the same time, we should pay attention to the combination of process evaluation and result evaluation, and dynamically track the development of students.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

The evaluation results can be applied to student evaluation, scholarship evaluation, graduation qualification review, employment recommendation and so on. It can also be used as an important reference for students' personal development planning to help students find their own advantages and disadvantages and clear the direction of development.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

Evaluation results should be timely feedback to students and provide detailed comments and suggestions for improvement. Schools should establish a sound feedback mechanism to help students improve themselves according to the evaluation results. It is suggested to hold evaluation feedback meeting regularly to promote communication and exchange between students, teachers and parents.

Interviewer 3

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

The evaluation staff should include experts from inside and outside the school, teachers, student representatives and industry personnel to ensure the diversity and comprehensiveness of the evaluation.

2. What are the suggestions for the comprehensive quality evaluation personnel?

It is suggested to pay attention to the professionalism and diversity of personnel, and regularly train evaluators to improve evaluation ability and fairness.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

Evaluation content should cover moral, intellectual, physical, beauty, labor five aspects, combined with school characteristics and training objectives, pay attention to professional quality.

4. What are your suggestions for the evaluation content?

It is suggested to pay attention to the actual performance and growth process and increase the evaluation content of innovation ability and teamwork spirit.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

A combination of quantitative and qualitative methods was adopted, including grades, questionnaires, interviews, scenario simulations and field visits.

6. What are your suggestions on the evaluation method?

It is suggested to combine the process evaluation with the result evaluation to ensure the scientific and operability of the method and improve the fairness and justice of the evaluation.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

The evaluation results can be used for students' self-cognition, teachers' teaching improvement, reward and punishment assessment, graduation review and employment recommendation.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

It is suggested to feedback the evaluation results in time, formulate personalized training programs, pay attention to fairness and confidentiality, and promote the all-round development of students.

Interviewer 4

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

An evaluation team consisting of experts from inside and outside the school, teachers' representatives, students' representatives and experts from

enterprises and industries should be formed to ensure a diversified and professional evaluation perspective.

2. What are the suggestions for the comprehensive quality evaluation personnel?

It is suggested to pay attention to the diverse backgrounds of team members to ensure the comprehensiveness and impartiality of the evaluation criteria. At the same time, strengthen the training of team members, improve the professional and scientific evaluation.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

Students' ideology and morality, professional knowledge, skill level, physical and mental health, social practice and innovation ability should be comprehensively considered according to national education goals, industry standards and school characteristics.

4. What are your suggestions for the evaluation content?

It is suggested that the content of evaluation should not only reflect the common requirements, but also pay attention to the development of individuality. The introduction of industry standards and enterprise needs, so that the evaluation content closer to the actual and social needs.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

A combination of quantitative and qualitative evaluation methods should be adopted, including multi-dimensional evaluation methods such as exam results, skill assessment, project works, internship reports, and daily behavior performance.

6. What are your suggestions on the evaluation method?

It is suggested to use modern information technology, such as big data, artificial intelligence, etc., to improve the efficiency and accuracy of evaluation; At the same time, pay attention to the combination of process evaluation and result evaluation to reflect the comprehensive quality of students.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

The evaluation results can be used in scholarship evaluation, employment recommendation, career planning guidance, individualized teaching program formulation and school teaching quality improvement.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

It is suggested to establish a timely feedback mechanism to ensure that the evaluation results can be timely feedback to students and teachers; At the same time, the application of evaluation results should be strengthened, such as adjusting teaching plans and curriculum Settings according to students' evaluation results to promote students' all-round development. In addition, students' privacy should be protected, and evaluation results should be reasonably disclosed.

Interviewer 5

1.What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

"Assemble a diverse evaluation team composed of teachers, counselors, experts in the field, industry representatives and outstanding alumni. Ensure that the evaluation team members have the appropriate expertise, evaluation experience and professional ethics. Evaluation teams are regularly trained to ensure they are up to date on evaluation criteria and techniques."

2.What are the suggestions for the comprehensive quality evaluation personnel?

Taking into account the comprehensiveness and objectivity of the evaluation, participants from different backgrounds and specialties should be selected. Establish a rotation mechanism of evaluators to avoid a single perspective affecting the evaluation results. External third-party institutions are introduced to conduct supervision or parallel evaluation to increase the fairness and credibility of evaluation.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

In combination with the national education policy and social needs, the core objectives and indicators of evaluation are clearly defined. Including but not limited to professional knowledge and skills, practical ability, innovation ability, teamwork, professional quality and so on. Opinions can be collected through questionnaires and expert seminars to ensure the comprehensiveness and applicability of the evaluation content.

4. What are your suggestions for the evaluation content?

In addition to hard skills, soft skills such as communication and critical thinking should also be studied. The evaluation content is updated regularly to meet the new requirements of socio-economic and technological developments. Increase students' self-evaluation and peer evaluation and enhance students' self-cognition and development awareness.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

I think a variety of evaluation tools and methods can be used, such as exams, project assignments, practice reports, interviews, behavioral observations, etc. Use IT tools such as online platforms for self-assessment and peer assessment. Design reasonable scoring criteria and weight distribution to ensure fair and transparent evaluation process.

6. What are your suggestions on the evaluation method?

I think a variety of evaluation tools and methods can be used, such as exams, project assignments, practice reports, interviews, behavioral observations, etc. Use IT tools such as online platforms for self-assessment and peer assessment. Design reasonable scoring criteria and weight distribution to ensure fair and transparent evaluation process.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

I think it can be used in the formulation of students' personal development plan and personal career planning guidance. As an important reference for scholarship evaluation, internship recommendation and employment guidance.

Improve teaching methods and curriculum to better meet the needs of students and the market."

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

I think a timely and effective feedback mechanism should be established to help students understand the evaluation results and put forward suggestions for improvement. Periodically analyze evaluation data to identify strengths and weaknesses prevalent in the student population. Educational strategies can be adjusted according to the evaluation results to promote the optimal allocation of educational resources."

Interviewer 6

1.What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

In my opinion, the influencing factors should include: To set up a comprehensive quality evaluation staff for students in higher vocational colleges, it is necessary to build a diversified and professional team, including teachers' representatives from the teaching front line, staff from the student work management department, industry and enterprise experts, psychological counselors and student representatives. By clarifying evaluation standards, training evaluation skills, ensuring fair and transparent evaluation, and establishing feedback and adjustment mechanisms, we are jointly responsible for the comprehensive and objective evaluation of students' comprehensive quality and promote their all-round development

2.What are the suggestions for the comprehensive quality evaluation personnel?

As for the suggestion of setting up students' comprehensive quality assessment personnel, I think it is necessary to ensure that the team members are diverse and professional, covering multiple fields such as education, psychology and industry, so as to comprehensively assess students' comprehensive quality. At the same time, strengthen the training and communication of team members, improve

the evaluation ability and fairness, and ensure the objectivity and accuracy of the evaluation results. In addition, an effective monitoring mechanism should be established to ensure the transparency and impartiality of the evaluation process.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

It is determined that the content of comprehensive quality evaluation of students in higher vocational colleges should include ideological quality, professional quality, professional quality, humanistic quality and physical and mental quality.

4. What are your suggestions for the evaluation content?

I suggest that the comprehensive quality evaluation should strengthen the innovative practice ability, teamwork spirit, social responsibility and interdisciplinary knowledge application ability, while focusing on cultivating students' lifelong learning attitude and self-management ability. Such evaluation content can better adapt to the social demand for highly skilled talents and promote the all-round development of students.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

In my opinion, when determining the evaluation method of the comprehensive quality of students in higher vocational colleges, we should consider adopting diversified methods, including but not limited to written examination, interview, practical evaluation, project evaluation, peer evaluation and self-evaluation, so as to ensure the comprehensiveness and objectivity of the evaluation.

6. What are your suggestions on the evaluation method?

I propose to establish a diversified evaluation system, covering vocational skills, learning attitude, innovation ability, teamwork, social responsibility and psychological quality, focusing on the combination of process evaluation and outcome evaluation.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

I think the evaluation results of the comprehensive quality of students in higher vocational colleges can be applied to graduation evaluation, employment

recommendation, scholarship evaluation, career development planning, evaluation and talent training quality improvement.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

I suggest timely feedback of evaluation results to help students understand their own strengths and weaknesses; The results will be applied to personalized study guidance, career planning, scholarship evaluation, etc., to promote the all-round development of students. At the same time, ensure that the evaluation process is open and transparent to increase student participation.

Interviewer 7

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

I think that a diverse evaluation team, including teachers, counselors, business mentors, student representatives and mental health experts, will ensure that the evaluation perspective is comprehensive.

2. What are the suggestions for the comprehensive quality evaluation personnel?

I recommend strengthening professional training for team members, clarifying their respective responsibilities, ensuring a fair and transparent evaluation process, and establishing a mechanism for regular communication.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

In my opinion, based on educational goals, industry needs and students' development, comprehensive consideration should be given to moral, intellectual, physical, beauty, labor and other aspects to form a systematic evaluation index system.

4. What are your suggestions for the evaluation content?

I suggest that practical skills, innovation ability and social responsibility be included in the key evaluation content, to be closer to the actual needs and promote the all-round development of students.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

In my opinion, it is necessary to propose the introduction of a third-party evaluation body to increase the objectivity and credibility of the evaluation, while using modern information technology to improve the efficiency and accuracy of the evaluation.

6. What are your suggestions on the evaluation method?

I propose to introduce a third-party evaluation body to increase the objectivity and credibility of the evaluation, while using modern information technology to improve the efficiency and accuracy of the evaluation.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

I think the evaluation results can be used in many aspects such as student evaluation, scholarship evaluation, employment recommendation, career planning guidance and education and teaching improvement.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

I suggest the establishment of a timely feedback mechanism to ensure that students can timely understand their own strengths and weaknesses and make targeted improvements. At the same time, the evaluation results are used as an important basis for the evaluation of teachers' teaching quality and the adjustment of student training programs.

Interviewer 8

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

I think the influencing factors include 1) setting up a multidisciplinary team, including experts in pedagogy, psychology, vocational education, industry and enterprise representatives, to ensure the comprehensiveness and scientific of the evaluation. 2) Invite alumni and community: Engage alumni with practical work experience and professionals in relevant industries to provide multi-perspective

evaluation.3) Teachers and student representatives: Select some experienced teachers and student representatives to ensure the fairness and representativeness of the evaluation.

2.What are the suggestions for the comprehensive quality evaluation personnel?

I recommend, 1) Transparent selection process: establish clear selection criteria and processes to ensure that the selection of evaluators is open and transparent. 2) Training and support: Provide systematic training and continuous support for evaluators to ensure that they can effectively carry out evaluation work. 3) Regular update and rotation: update and rotation of evaluators on a regular basis to avoid the solidification and subjective deviation of evaluation criteria.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

I think the influencing factors should include 1) multi-dimensional evaluation, including academic performance, vocational skills, innovation ability, teamwork, leadership, social responsibility and other dimensions. 2) Demand-oriented: According to the needs of the industry and the characteristics of vocational education, determine the evaluation content suitable for students in higher vocational colleges. 3) Student participation: Students are invited to participate in the formulation of the evaluation content to ensure that the evaluation content is close to the reality and needs of students.

4. What are your suggestions for the evaluation content?

Dynamic adjustment: According to the development of society and industry, regularly adjust and update the evaluation content. Emphasis on comprehensiveness: we should not only pay attention to students' professional skills, but also pay attention to the development of their comprehensive quality. Personalized evaluation: Develop differentiated evaluation criteria and content for different professions and individuals.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

Multiple evaluation: using written test, interview, practical assessment, project display, questionnaire and other evaluation methods. Process evaluation: Focus on evaluating the learning and growth process of students, not just the outcome. Quantitative and qualitative combination: comprehensive use of quantitative analysis and qualitative analysis, comprehensive evaluation of students' comprehensive quality.

6. What are your suggestions on the evaluation method?

Flexible and diverse: Select appropriate methods according to different evaluation contents, avoiding single evaluation methods. Data-driven: the use of big data and information technology to improve the scientific and accurate evaluation. Student feedback: Pay attention to students' self-evaluation and peer evaluation, increase the diversity and objectivity of evaluation.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

Teaching improvement: Through the evaluation results feedback teaching, improve the curriculum and teaching methods. Career guidance: Based on the evaluation results, students will be provided with targeted career guidance and employment advice. Student development: Help students understand their own strengths and weaknesses and develop personalized development plans.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

In my opinion, timely feedback is necessary: the evaluation results are timely feedback to students, teachers and parents to promote the growth and development of students. Disclosure of results: Disclosure of evaluation results to the appropriate extent to increase the transparency and credibility of evaluation. Continuous tracking: The evaluation results are continuously tracked and analyzed to ensure the effectiveness and continuous improvement of the evaluation.

Interviewer 9

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

I think that we should form a diverse evaluation team composed of faculty, industry experts, alumni and student representatives.

2. What are the suggestions for the comprehensive quality evaluation personnel?

I think it is necessary to strengthen the training of members to ensure fair and just evaluation; Increase the proportion of businesspeople in line with actual demand.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

I think the content should cover many aspects, such as professional knowledge, vocational skills, innovation consciousness, teamwork and social responsibility.

4. What are your suggestions for the evaluation content?

Dynamic adjustment: According to the development of society and industry, regularly adjust and update the evaluation content. Emphasis on comprehensiveness: we should not only pay attention to students' professional skills, but also pay attention to the development of their comprehensive quality. Personalized evaluation: Develop differentiated evaluation criteria and content for different professions and individuals.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

I suggest adding the assessment of social practice and innovation and entrepreneurship activities to strengthen students' ability to solve practical problems.

6. What are your suggestions on the evaluation method?

I think it is necessary to adopt a combination of multiple evaluation methods, such as observation record, project work, peer evaluation and self-reflection.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

I think the evaluation results can be used for student evaluation, scholarship awarding, job recommendation, curriculum reform and personalized learning plan development.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

I suggest that students should be given regular feedback on the evaluation results and specific suggestions for improvement. At the same time, the evaluation results are linked to the adjustment of talent training programs.

Interviewer 10

1. What do you think are the factors that affect the comprehensive quality evaluation personnel of students in higher vocational colleges?

I believe that evaluators should be composed of a diverse team, including faculty, administrators, student representatives, external experts, and business representatives. This ensures comprehensiveness and objectivity of the evaluation.

2. What are the suggestions for the comprehensive quality evaluation personnel?

I suggest that it should be 1) Teachers: Select teachers with rich experience in teaching and student management. 2) Administrative personnel: including the head of the Office of Student Affairs, the Office of Academic Affairs and other relevant departments. 3) Student representatives: Select representative and credible student leaders or student representatives. 4) External experts: Experts in the field of education are invited to participate in the evaluation. 5) Enterprise representatives: Invite the human resource leaders of enterprises that have a partnership with the school to participate in order to ensure that the evaluation is in line with the needs of the job market.

3. What aspects do you think affect the comprehensive quality evaluation content of students in higher vocational colleges?

In my opinion, the factors affecting the content of evaluation include the following aspects: 1) Academic ability: The student's academic achievement, learning ability, and academic progress. 2) Professional ability: professional skills, internship

performance, vocational qualification certificate, etc. Innovation ability: innovative thinking, project participation, innovation results, etc. 3) Comprehensive qualities: including communication skills, teamwork, leadership, social responsibility, etc. 4) Physical and mental health: physical quality, mental health status.

4. What are your suggestions for the evaluation content?

I suggest that we should 1) multi-dimensional: The evaluation content should be comprehensively covered in multiple dimensions to avoid a single standard. 2) Personalized: According to the characteristics of different majors, set personalized evaluation content. 3) Dynamic adjustment: Review and adjust the evaluation content regularly to adapt to changes in social and market needs.

5. What do you think are the factors that affect the comprehensive quality of students in higher vocational colleges?

In my opinion, the influencing factors include: 1) Quantitative evaluation: evaluation is carried out through quantitative indicators (such as grades and the number of certificates). 2) Qualitative evaluation: Subjective evaluation through questionnaire survey, interview, observation and other methods. 3) Process evaluation: Focus on the performance and progress of students in the process of growth. 4) Final evaluation: comprehensive evaluation indicators, the final evaluation of students.

6. What are your suggestions on the evaluation method?

I suggest 1) Scientific: the evaluation method should be scientific and reasonable to ensure the accuracy and credibility of the evaluation results. 2) Diversity: a combination of multiple evaluation methods is adopted to avoid the limitations of a single evaluation method. 3) Continuity: The evaluation should run through the entire process of the student's school and keep track of the student's development. 4) Transparency: The evaluation process and results should be open and transparent, subject to student and community oversight.

7. What factors should affect the application and feedback of the comprehensive quality evaluation results of students in higher vocational colleges?

In my opinion, the influencing factors include: 1) Student status management: as an important basis for student evaluation, scholarship evaluation,

graduation qualification review, etc. 2) Employment recommendation: Provide personalized employment guidance and recommendation for students to enhance employment competitiveness. 3) Education and teaching: as an important reference for teaching quality assessment and curriculum reform. 4) Student development: Help students understand their own strengths and weaknesses and make personal development plans.

8. What are your suggestions on the application and feedback of the students' comprehensive quality evaluation results?

I suggest 1) Timely feedback: Timely feedback of the evaluation results to students and parents to help students improve their shortcomings. 2) Personalized guidance: Provide personalized guidance and support for students according to the evaluation results. 3) Improve teaching: Teachers should improve teaching methods and contents and improve teaching quality according to the evaluation results. 4) Social publicity: Use the evaluation results to carry out social publicity and improve the school's visibility and reputation.

Appendix E
Certificate of English



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RAJABHAT UNIVERSITY

This is to certify that

Mrs. Wu Ziyuan

Achieved BSRU English Proficiency Test (BSRU-TEP) level

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Given on 9th August 2022

(Assistant Professor Dr Kulsirin Aphiratvoradej)
Director

Appendix F

The Document for Accept Research



ACCEPTANCE OF MANUSCRIPT

Date: 15/10/2024

Dear Authors,

I am pleased to inform you that your paper has passed the review process after a careful and thorough perusal of the manuscript. The journal Editor-in-Chief, and reviewers have recommended your manuscript, titled **Development of Comprehensive Quality Evaluation System Strategies for Higher Vocational college students in Guangdong**, authored by **Ziyuan Wu, Phadet Kakhm, Narongwat Mingmit, Pawich Pholngam and Chawalit Juja** for publication in *International Journal of Education & Literacy Studies*. It is an excellent paper that will improve the readership of the journal. The paper will be published in Volume 12 Issue 4 of *IJELS* on 31/10/2024.

Yours sincerely,

Valid Nimchchisalem, PhD
Editor-in-Chief
International Journal of Education & Literacy Studies

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