DEVELOPMENT OF STRATEGIES A HIGH-QUALITY PROFESSIONAL
OF VOCATIONAL COLLEGE TEACHERS
IN NEW ERA

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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
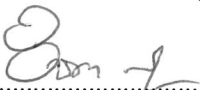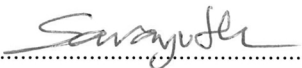
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Thesis Title   Development of a Sustainable Teacher Professional Model for Vocational Colleges in the New Era: A Case Study in Guangdong Province

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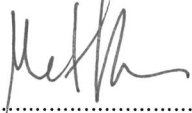
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ABSTRACT

The objectives of this study were 1) To study the conditions, problems and factors related to the development of strategies for High-quality vocational teacher professionals in the new era, 2) To create a strategy Professional development of high-quality vocational teachers in the new era, and 3) To evaluate the appropriateness of the strategy for Professional development of high-quality vocational teachers in the new era Area of research. The sample group of this study consisted of 381 teachers from higher vocational colleges in Guangdong Province for questionnaire and 10 teachers for interview, through random cluster. The research instruments included 1) questionnaire, 2) interview, and 3) evaluation form. The data were analyzed by mean, standard deviation and PNImodify for dependent sample.

The results revealed the followings:

Results of studying the conditions, problems and factors related to the High-quality vocational teacher professionals in the new era are high to highest level. Life development is ranking highest level. Professional development is ranking high level. Social development is ranking high level. Organize development is ranking high level. Results of development the strategies for Professional development of high -quality vocational teachers in the new era are total 10 strategies from SWOT, PEST, TOWS analysis, including composition factors and influencing factors. Results of evaluating the

appropriateness for the strategy of Professional development of high-quality vocational teachers in the new era are all highest adaptability and highest feasibility.

ชื่อเรื่อง	การพัฒนากลยุทธ์เพื่อวิชาชีพคุณภาพสูงของครูใน วิทยาลัยอาชีวศึกษาในยุคใหม่
ชื่อผู้วิจัย	หวง ลี่ฉง
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บทคัดย่อ

วัตถุประสงค์ของการศึกษาครั้งนี้คือ 1) เพื่อศึกษาสภาพ ปัญหา และปัจจัยที่เกี่ยวข้องกับการพัฒนากลยุทธ์สำหรับครูอาชีวศึกษาคุณภาพสูงในยุคใหม่ 2) เพื่อสร้างกลยุทธ์การพัฒนาวิชาชีพครูอาชีวศึกษาคุณภาพสูงในยุคใหม่ 3) เพื่อประเมินความเหมาะสมของกลยุทธ์การพัฒนาวิชาชีพครูอาชีวศึกษาคุณภาพสูงในยุคใหม่ กลุ่มตัวอย่างสำหรับการศึกษาครั้งนี้ประกอบด้วยครูจำนวน 381 คน จากวิทยาลัยอาชีวศึกษาในมณฑลกวางตุ้งสำหรับการตอบแบบสอบถาม และครูจำนวน 10 คนสำหรับการสัมภาษณ์ โดยใช้วิธีสุ่มแบบกลุ่ม การวิจัยใช้เครื่องมือดังนี้ 1) แบบสอบถาม 2) แบบสัมภาษณ์ 3) แบบฟอร์มการประเมิน การวิเคราะห์ข้อมูลใช้ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และ PNI-modify สำหรับตัวอย่างที่ขึ้นต่อกัน

ผลการวิจัยพบว่า

ผลการศึกษาสภาพ ปัญหา และปัจจัยที่เกี่ยวข้องกับครูอาชีวศึกษาคุณภาพสูงในยุคใหม่มีระดับสูงถึงสูงที่สุด โดยการพัฒนาชีวิตจัดอยู่ในระดับสูงที่สุด การพัฒนาวิชาชีพจัดอยู่ในระดับสูง การพัฒนาสังคมจัดอยู่ในระดับสูง และการพัฒนาองค์กรจัดอยู่ในระดับสูง ผลการพัฒนากลยุทธ์สำหรับการพัฒนาวิชาชีพครูอาชีวศึกษาคุณภาพสูงในยุคใหม่มีทั้งหมด 10 กลยุทธ์ โดยใช้การวิเคราะห์ SWOT, PEST, TOWS รวมถึงปัจจัยประกอบและปัจจัยที่ส่งผลกระทบ ผลการประเมินความเหมาะสมของกลยุทธ์สำหรับการพัฒนาวิชาชีพครูอาชีวศึกษาคุณภาพสูงในยุคใหม่ทั้งหมดมีความสามารถในการปรับตัวและความเป็นไปได้ในระดับสูงสุด

คำสำคัญ: การพัฒนากลยุทธ์, วิชาชีพคุณภาพสูง, ครูวิทยาลัยอาชีวศึกษา, ยุคใหม่

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Huang Liqiong

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Chapter 1

Introduction

Rationale

Teacher development has been an important issue of concern to the international community in recent decades. It is recognized by countries around the world as an important content and core path to improving the quality of education. Its core is to improve the quality of teachers.

Teacher development has been a critical global concern in recent decades, recognized as a core strategy for improving education quality by enhancing teacher competencies. Since the 1980s, global education has entered a new phase, with countries implementing policies to prioritize quality and strengthen professional teaching staff. UNESCO has emphasized the importance of teachers in achieving inclusive, equitable, and quality education. For example, the "UNESCO Development Strategic Plan (2014-2021)" proposed advancing education systems and promoting lifelong learning, while the 2015 report, Rethinking Education: Toward a Global Common Good, highlighted the need to focus on teachers as key agents of change (You, 2014; Shuai, Xiong, & Chen, 2014).

The Asia-Pacific region prioritizes teacher education to improve education quality. A joint UNESCO and UNICEF (2012) report highlights that teacher training remains a key focus, though challenges persist, such as low motivation and insufficient professional autonomy in low-income countries. The report suggests governments prioritize defining quality education, improving management systems, creating evaluation frameworks, and increasing research investments. It also emphasizes establishing teacher performance standards and enhancing teacher autonomy through their involvement in school decision-making (Shuai et al., 2014).

In Australia, the federal report Preparing Teachers for the 21st Century underscores the link between high-quality education and professional teacher development (Ralph & Judith, 2005). Similarly, the Dutch government has

implemented measures such as improving teacher salaries, strengthening pre-service and in-service training, and establishing teacher registration systems to enhance teacher quality and professionalization (Dutch Government, 2013). These initiatives aim to meet professional competence standards and retain qualified teachers.

China has emphasized education as a national priority in its modernization efforts. The 19th National Congress (2017) proposed strategies such as developing quality education, promoting equity, and strengthening teacher ethics. Furthermore, the "14th Five-Year Plan" (2020) introduced the concept of a "high-quality education system" that aligns with innovation, equity, and sustainability. These policies emphasize building a high-quality teaching workforce with strong ethics, skills, and vitality, supporting teachers as societal role models (State Council, 2020; Zhou, 2020).

The "Opinions on Promoting the High-Quality Development of Modern Vocational Education" (2021) emphasized strengthening dual-qualified teacher teams, enhancing professional standards, and fostering collaboration between schools and enterprises. Key measures include dynamic teacher management systems, performance evaluations, and strengthening teacher-practice integration (Central Committee of China & State Council, 2021).

Despite progress, challenges remain in vocational teacher development in China. These include limited integration of life development in teacher evaluation, a lack of systematic research on developmental evaluation, and insufficient action research to validate theoretical findings. Existing evaluations often focus on reward systems and performance metrics without comprehensive developmental frameworks. Addressing these gaps is critical for enhancing teacher competency and aligning strategies with school contexts.

Given these challenges, strategies to promote high-quality vocational teacher development are essential. These strategies should adapt teacher competencies to school contexts and enhance student outcomes by addressing theoretical, methodological, and practical gaps.

For that reason. The researcher is therefore interested in developing strategies. To formulate strategies for promoting and developing the profession of

high-quality vocational teachers in the new era, bringing appropriate benefits to the development of learner quality and student achievement. Promote teacher competency to be adapted to suit the school context in order to obtain appropriate and beneficial strategies.

Research Problem

    1. What is Current conditions and problems of high-quality development of higher vocational teachers in Guangdong Province in the new era?

    2. What are the strategies to promote the high-quality development of higher vocational teachers in Guangdong Province in the new era?

    3. What is the adaptability and feasibility of the high-quality development strategy for higher vocational teachers in Guangdong Province in the new era?

Objectives

    1. To study the conditions, problems and factors related to the development of strategies for High-quality vocational teacher professionals in the new era.

    2. To create a strategy Professional development of high-quality vocational teachers in the new era.

    3. To evaluate the appropriateness of the strategy for Professional development of high-quality vocational teachers in the new era Area of research.

Scope of the Research

    The following concepts are used to study the problems, approaches and factors for the high-quality development of teachers in higher vocational colleges in Guangdong Province.

    1. Problems and guidelines for the high-quality development of teachers in higher vocational colleges in Guangdong Province

    2. Factors affecting the high-quality development of teachers in higher vocational colleges in Guangdong Province

1) External environment

2) Internal environment

3. Formulate a strategy for high-quality development of teachers in higher vocational colleges in Guangdong Province

Overall population

The population of this study is approximately 50,000 teachers and their management staff in 93 higher vocational colleges in Guangdong Province.

The research population included 50,000 teachers from higher vocational colleges in Guangdong Province, divided into:

1) 4 vocational colleges in the east, west and north of Guangdong with 12,000 students.

2) 4 vocational colleges in nine cities in the Guangdong-Hong Kong-Macao Greater Bay Area with 38,000 students.

Phase I: Study the research ideas and related factors for high-quality development of teachers in 93 higher vocational colleges in Guangdong.

The questionnaire survey method was used to study the current status of high-quality development of teachers in higher vocational colleges in Guangdong Province.

Sample Group

The sample group of this study is 381 teachers from higher vocational colleges in Guangdong Province. The sample group was randomly sampled using the table provided by Krejcic and Morgan (Krejcic and Morgan, 1970). According to the stratified random sampling method, they are divided into:

1) 92 people from higher vocational colleges in the east, west and north of Guangdong

2) 289 people from higher vocational colleges in nine cities in the Northwest of Guangdong.

Phase II: Formulate teacher development strategies to promote high-quality development of teachers in higher vocational colleges.

Through interviews, this paper studies the formulation of strategies for the high-quality development of teachers in higher vocational colleges in Guangdong Province.

Sample group

The data used to study the high-quality development strategies of teachers in higher vocational colleges in Guangdong Province come from 10 higher vocational teachers in higher vocational colleges in Guangdong Province.

1) There are 2 teachers from higher vocational colleges in Guangdong Province with 1-5 years of teaching experience

2) There are 2 teachers from higher vocational colleges in Guangdong Province with 6-15 years of teaching experience

3) There are 2 teachers in higher vocational colleges in Guangdong Province with 16-25 years of teaching experience.

4) There are 4 teachers in higher vocational colleges in Guangdong Province with more than 25 years of teaching experience

Phase III: Evaluate the applicability and feasibility of high-quality development strategies for teachers in higher vocational colleges in Guangdong Province.

Sample group

It used to evaluate the applicability and feasibility of high-quality development strategies for teachers in higher vocational colleges in Guangdong Province come from 2 experts of Heyuan Vocational and Technical College and 3 Thai experts.

1) 1 person who has worked for more than 15 years.

2) 2 people with senior professional titles.

3) 2 school management personnel at or above the director level.

The Variable

Independent Variable

Life development, professional development, organizational development, social development, etc. that affect the development of higher vocational teachers

Dependent Variable

Vocational of Teachers Development

Content (s)

1) Define the core concepts such as "higher vocational teacher development", "characteristics of higher vocational teacher development" and "theoretical basis of teacher development in the new era";

2) Apply the principle of factor sum evaluation method to compile a developmental evaluation measurement form for higher vocational teachers that meets scientific requirements for reliability and validity, and develop a new evaluation tool;

3) Measure the development status of higher vocational teachers in hierarchical and classified categories, conduct development index evaluation and verification, and conduct in-depth analysis and clarification of the main factors affecting the development of higher vocational teachers;

4) Implement and propose development strategies for higher vocational teachers;

5) Develop development standards for higher vocational teachers and formulate high-quality development strategies for higher vocational teachers in the new era.

Time

The study will mainly be conducted from February to August 2024, and the key stages are as follows:

1) In March 2024, the materials were organized and the writing of the first three chapters was completed, and the topic was successfully developed.

2) From April to May 2024, through literature research and questionnaires, we will understand the current situation of teacher development at home and abroad and find out the current problems in teacher development.

3) From June to July 2024, formulate high-quality development strategies for higher vocational teachers in the new era and invite experts to discuss the applicability and feasibility of these strategies.

4) In August 2024, summarize the research results and complete the paper.

Advantages

1) For schools, the formulation of strategies will better cultivate a team of "double-qualified" teachers with excellent ethics, superb skills, and full of vitality, and help the high-quality development of our school's teaching team.

2) For teachers, guide teachers to put teacher ethics first, put students first, practice the concept of lifelong learning, continuously improve the level and ability of practical teaching, scientific research and serving society, and promote the continuous improvement of teachers' comprehensive abilities.

Definition of Terms

High-quality professional teacher means professional teacher have good conduct Consisting of 3 qualifications:

1) Knowledge means being a person with knowledge and professional expertise. able to manage in the classroom using research skills foreign languages, technology, media and Modern educational equipment is applied in teaching. along with developing a curriculum effectively There is measurement and evaluation. By focusing on students as important, paying attention to every student who accept and understand the differences in each child.

2) Performance means ability Develop your own professional skills regularly, think analytically from receiving news, information, and movements around the world in a short time, aiming to develop teaching plans, learning media and various

innovations to bring apply to solve problems continuously by adhering to systematic theory in work practice. To raise the standard of the teaching profession to be high professional Aiming at truly developing students' potential. To stimulate and encourage students to learn or create knowledge on their own.

3) Behavior means being a person of love, faith, attitude, ethics, and culture in performing one's duties. The spirit of being a teacher has an image of being a good teacher with morality and ethics. Conduct yourself according to professional standards and professional ethics Collaboration between parents and community person in the community and all departments to develop learners together, equip learners with knowledge, abilities, and cultivate Morals and ethics, emphasizing lasting results for learners.

Vocational college teachers: Teachers in vocational colleges refer to those who have been in teaching in colleges or vocational colleges in higher vocational and technical colleges. Not only do they have solid disciplines, they are also familiar with the teaching methods and theories of vocational education. They are committed to cultivating high -quality skill talents with practical operational skills and adapting to the needs of the industry.

Teacher development in higher vocational colleges: refers to the fundamental task of teachers to cultivate moral integrity and cultivate people. With the support of the teacher development system, through systematic professional quality shaping, professional theoretical learning, practical skills training, scientific research and innovation research, etc., teachers can achieve individual development with the continuous improvement of professional quality and ability level, he will eventually grow into a high-quality professional "double-qualified" teacher.

Strategy: refers to the process of formulating an action plan and its supporting resource allocation to achieve a specific goal, and also includes a reinforced feedback mechanism for monitoring and adjustment during the implementation of the action. This article has four steps to formulate a strategy, namely, the first step: clarify the goal; the second step: analyze the internal and external environment; the

third step: formulate a clear strategy; the fourth step: evaluate and revise the strategy.

Strategy for developing professional teachers refers to methods, processes, joint operations of administrators, educational institutions, teachers, and personnel involved in development. Teachers can organize teaching and learning activities to meet quality standards, consisting of:

1) Preparing for teaching means taking action before teaching. Organize teaching and learning activities, consisting of curriculum study and prepare teaching in line with learning standards and indicators according to the curriculum objectives to prepare yourself for This is for the role of teachers, who must study, research, and experiment with the issues and content for which they are responsible in order to provide advice, recommendations, and useful explanations for students.

2) Organizing learning activities means planning teaching and learning activities according to Defined indicators and learning objectives promote creativity. Stimulate interest in Study to suit the development of the learner. Let students participate in organizing learning activities, creating intentions, good mottos in course content Pay attention to learners' behavior in expressing themselves appropriately during Organize teaching activities.

3) The use of media and technology means teachers' selection of appropriate teaching media. and consistent with teaching objectives Have the ability to produce media, have expertise and know how to use teaching media, choose media that is appropriate to the learners' abilities. Prepare media and check the media that will be used so that students can use modern and permanent media.

4) Measurement and evaluation refer to the study and analysis of curriculum standards and indicators in order to determine the criteria for evaluating the curriculum. Set tasks and pieces of work that show the potential of the learners. Use the observation process. By recording and interviewing and collecting data from students' work, teachers have the ability to create good exams and grade them fairly.

5) Classroom research means solving problems that arise while organizing learning activities in a systematic way. A system based on scientific principles in

finding facts to get answers, using the results to improve. and develop the teaching and learning process of teachers The teacher is the one who does it. Analyze problems and needs of learners, organize learning activities to solve problems or develop learners, collect data and analyze data, and summarize the results of solving problems or summarize the results of continuous development.

High-quality development refers to development that can well meet the people's growing needs for a better life and is a development that embodies the new development concept. Under the guidance of the new development concept, the economy and society achieve a development pattern and model of more stable, balanced, harmonious and coordinated growth in terms of efficiency, fairness, security and sustainability; under the guidance of the new development concept, the economy and society achieve a new quality development of higher quality, more efficiency, more fairness, more sustainability and more security.

Sustainable development: refers to meeting current needs without compromising the ability of future generations to meet their needs. It emphasizes the balance and coordination of the three aspects of economy, society and environment, aiming to achieve long-term prosperity of human society and healthy and stable natural ecosystems.

New era: a new and significant period or stage. The new era of socialism with Chinese characteristics is a new historical orientation for China's development. Since the 18th CPC National Congress, socialism with Chinese characteristics has entered a new era. This new era is an era of inheriting the past and ushering in the future, carrying forward the past and forging ahead into the future, and continuing to win the great victory of socialism with Chinese characteristics under new historical conditions. It is an era of decisive victory in building a moderately prosperous society in all respects and then building a modern socialist country in all respects. It is an era in which people of all ethnic groups in the country unite and strive to continuously create a better life and gradually realize common prosperity for all people.

SWOT：SWOT analysis is a strategic planning tool, which is called Streangths, Weaknesses, Opportunities, and THRATS (threats) analysis. It comprehensively

evaluates the internal factors (advantages and disadvantages) and external factors (opportunities and threats) of an organization, project, individual or product, and external factors (opportunities and threats) to help decision makers clarify their competitive status and formulate corresponding development strategies and plans based on this. Or countermeasures.

PEST: PEST analysis refers to the analysis of the macro environment. It is a methodology used to evaluate the external environment of the enterprise. Through the four aspects of politics, the economy's (Economic), the society, and the technology (TECHNOLOGY) Factors analyze the impact of the macro environment and evaluate the impact of these factors on corporate strategic goals and strategic formulation.

Mckinsey 7S Model: The McKinsey 7s Model, referred to as 7S model, is a seven -element model designed by the McKinsey Consultant Research Center. The McKinsey 7S model consists of seven English words that start with "S". SHARED VALUES. The model pointed out that the enterprise must fully consider the situation in all aspects in the development process to ensure the success and sustainable development of the enterprise.

Teacher development research refers to the subject field that studies the process of improving professional knowledge, educational skills, educational concepts and professional qualities of individual or group teachers through continuous learning, practice and reflection in their careers.

This study intends to use SWOT, PEST and TOWS to analyze the development of higher vocational teachers, focusing on the growth process, influencing factors and optimization strategies of teachers. It aims to promote the continuous improvement of teachers' personal qualities and professional abilities, promote the all-round development of teachers, and thus improve the quality of education and teaching by deeply exploring the process, influencing factors and optimization strategies of teachers' professional growth.

Research Framework

Teacher development in vocational colleges has become a critical area of focus in the new era, particularly with the increasing demands for high-quality education and professional competency among educators. This study proposes a research framework aimed at addressing current challenges, leveraging opportunities, and promoting sustainable growth for vocational college teachers. Grounded in established theories, the framework emphasizes the interplay between current conditions, strategic analysis, and actionable solutions.

The research concept framework is as follows:

The current situation of the development of teachers in vocational colleges

1. Lack of key variables such as life development in the development of vocational college teachers.
2. Lack of systematic research on the developmental evaluation of vocational college teachers.
3. Lack of action research on developmental evaluation of vocational college teachers.

The current situation of the development of teachers in vocational colleges

(Literature review, questionnaire survey, interview)

2. SWOT analysis

1) Intrinsic factors:
   7's: Structure, system, style, employees, skills, strategy, shared values
2) External factors:
   PEST: Politics, Economy, Technology, Society

High quality development of vocational college teachers in the new era

TOWs matrix

SO: Solid professional knowledge,
WO: Lack of autonomy and development motivation
ST: Highly valued by the country and supported by relevant policies
WT: Inadequate training system and unreasonable assessment system

Sustainable development

1. Optimize talent structure, disseminate scientific knowledge, and transform scientific knowledge into practical productivity.
2. Motivate teachers to devote themselves to teaching and educating, and promote the formation of outstanding talents competing for teaching.
3. The ecological construction of schools is moving towards value-added growth and harmonious development, enhancing the sense of achievement and happiness of vocational college teachers, and stimulating the endogenous driving force of new quality growth.

Promoting high-quality development of various abilities of vocational college teachers through teacher development strategies

Figure 1.1 Research Framework

The research begins with an analysis of the current situation in vocational college teacher development. 3 critical issues are identified:

1) A lack of integration of key variables, such as life development, into teacher development frameworks.

2) Insufficient systematic research on the developmental evaluation of vocational college teachers.

3) A limited application of action research in evaluating and improving teacher development strategies.

To thoroughly understand these challenges, the study employs a combination of literature reviews, questionnaire surveys, and interviews, providing a robust basis for subsequent analysis.

A SWOT analysis is conducted to evaluate both intrinsic and extrinsic factors influencing teacher development:

1) Intrinsic Factors (7S Model): These include structure, systems, style, staff, skills, strategy, and shared values. These elements define the internal dynamics of teacher development in vocational colleges.

2) Extrinsic Factors (PEST Model): These factors encompass political, economic, social, and technological influences, which shape the external environment for teacher growth.

This analysis highlights key strengths, such as the solid professional knowledge of teachers, while identifying weaknesses like a lack of autonomy and motivational structures. Opportunities arise from strong governmental support, whereas threats include inefficient training systems and outdated evaluation methods.

Using insights from the SWOT analysis, the TOWS matrix is applied to develop targeted strategies:

1) SO (Strength-Opportunity): Utilize professional knowledge and align with supportive policies to enhance teacher capabilities.

2) WO (Weakness-Opportunity): Improve teacher autonomy and motivation through professional development initiatives.

3) ST (Strength-Threat): Align teacher competencies with national educational priorities to mitigate systemic challenges.

4) WT (Weakness-Threat): Reform training and assessment systems to address inefficiencies and enhance teacher effectiveness.

The framework proposes several strategies for the sustainable development of vocational college teachers:

1) Optimizing Talent Structure: Disseminate scientific knowledge and transform it into practical productivity to enhance teaching effectiveness.

2) Enhancing Motivation: Encourage teachers to dedicate themselves to teaching and cultivate outstanding talent in the education sector.

3) Ecological School Development: Foster a harmonious growth environment that enhances teacher satisfaction and promotes endogenous quality improvements.

These strategies aim to create a supportive ecosystem for teacher development, ensuring long-term sustainability and alignment with educational goals.

The ultimate objective of the framework is to enhance the professional abilities of vocational college teachers through comprehensive teacher development strategies. By addressing existing challenges and fostering an environment of continuous improvement, the framework seeks to align vocational education with the evolving demands of the modern educational landscape.

This research framework is grounded in several well-established theoretical models:

1) SWOT Analysis (Humphrey, 1960s): To evaluate internal and external factors influencing teacher development.

2) 7S Model (McKinsey, 1980s): To analyze intrinsic organizational elements.

3) PEST Analysis (Aguilar, 1967): To examine macro-environmental influences on vocational education.

4) Sustainable Development Theory (Brundtland Commission, 1987): To provide a foundation for long-term growth and harmony in educational ecosystems.

By integrating these theories, this framework offers a comprehensive and actionable approach to addressing the challenges and opportunities in vocational teacher development. It emphasizes the importance of aligning teacher competencies with institutional and societal needs, ultimately promoting the high-quality development of vocational education in the new era.

Chapter 2
Literature Review

This study investigates the theories, explorations and practical results of domestic and foreign scholars on teacher development, new era higher vocational teacher development, and new era teacher development, and conducts a detailed review. On this basis, the author will analyze the literature and related research results from the following aspects, as summarized below:

1. Professional teachers

    1.1 Meaning

    1.2 Characteristics of professional teachers

    1.3 Professional Standards for Teachers

    1.4 Development of professional teachers

2. Concepts and theories of teacher development

    2.1 The origins of teacher development

    2.2 The concept of teacher development

    2.3 Research Overview of Teacher Development

3. Strategy

    3.1 Definition of Strategy

    3.2 Research Tools for Developing Faculty Development Strategies

    3.3 Steps to developing a strategy

    3.4 Strategic analysis for teacher development

    3.5 Strategies for developing into a professional teacher

        3.5.1 Preparation for teaching

        3.5.2 Organizing learning activities

        3.5.3 Use of media and technology

        3.5.4 Measurement and evaluation

        3.5.5 Classroom research

4. Related research

4.1 Domestic research

4.2 Foreign research

4.3 New Era

4.4 High-quality development

4.5 Sustainable Development

The related research details are as follows:

Professional Teacher

1.1 Meaning

Chuchat Puangmalee (2007) stated that professional teacher means People who have passion for their profession Able to manage the organization of their own teaching and learning activities to always be better and meet the needs of students With a variety of systematic teaching techniques and can change oneself to It effectively follows the changing situation in each era.

Yon Chumchit (2007) stated that professional teachers mean teachers who consist of There are two main qualifications. The first is clear knowledge, true knowledge, clear knowledge, knowing what to teach and what not to teach. The second is the ability to transfer knowledge to all students. including training and teaching trends Induce the minds of students to behave in morality and goodness.

Sutheera Suriyawong (2007) said that professional teachers refer to educational personnel who Must be with the student at all times. The teacher's teaching process must be used with all aspects of the students. Theory and practice, therefore, teachers must be knowledgeable and able to have knowledge and ability by good teachers. Have the intention to constantly develop yourself. We always strive to have quality. Have the ability to suit Being a new era teacher.

In conclusion, a professional teacher means a teacher with expertise. professional expertise able to develop skills One's own profession on a regular basis, adhering to knowledge, abilities, skills and experience, and expertise in performing one's profession according to changing situations. Have ethics and culture Perform

duties with the spirit of being a teacher Aiming at truly developing students' potential to stimulate Encourage students to learn or create knowledge by themselves.

1.2 Characteristics of professional teachers

The Secretariat of the Education Council (2014) has determined that important elements of professionalism include:

1) Have true knowledge in the subject matter. Know the principles and origins of the subject. and Can predict to find a solution in the event of an abnormality occurring.

2) Have the ability to apply knowledge appropriately This ability will occur Gained from experience, wit, and intelligence until it has become a special expertise that ordinary people do not have.

3) Have the ability to coordinate good relationships with service recipients, communicate and understand well. Constructive conversations, knowing how to be patient and tolerant in order to be able to to create work that correctly responds to needs.

Ratchanee Ngasaman (2010) stated that the characteristics of professional teachers in various fields as follows:

1) In terms of teaching, teachers must teach. Teachers must inform learning objectives before starting every lesson, times, inserting knowledge of morals and ethics while teaching Pay attention and closely follow the academic results. Use correct and appropriate language. Speak and write clearly Give students freedom to express their opinions and use different teaching methods appropriate to their learning. and use teaching media regularly

2) Academically, teachers should study and research to always have new knowledge and bring new ideas to use in solving problems in teaching.

3) Health and mental aspect Teachers should have a healthy, clean body, no contagious diseases, and good mental health. Have a stable mood and has a sense of humor on occasion

4) Human relations Teachers should know every student and remember their names, give praise for good deeds, and allow students to have conversations outside of class time.

5) Morality and behavior Teachers should have adherence to religious principles. He is a good role model for the general public.

6) Personality Should have an enthusiastic personality. Come to teaching on time, have high responsibility, dress cleanly and simply, and have patience.

7) In terms of training, guidance, and governance, teachers use reason to decide the correctness of students with reason and fairness. Control students in strict discipline.

8) Being a good citizen in a democratic society Teachers accept and listen to the opinions of others. Discipline Should participate in activities related to traditions and customs.

In conclusion, the characteristics of a professional teacher must be a teaching practitioner who has characteristics in 5 areas: development of teaching and learning; The use of information and communication technology in Use English for communication Personality development and self-development.

1.3 Professional Standards for Teachers

Government Portal of the Ministry of Education of the People's Republic of China (2013) and Government Portal of the Ministry of Education of the People's Republic of China (2012) mentioned Professional standards are the basic requirements of the state for the professional quality of school teachers, the basic norms for implementing educational and teaching behaviors, the basic principles for guiding the professional development of teachers, and the basis for school teacher training, admission, and training. According to the search of relevant government websites, the basic concepts of China's teacher professional standards are divided into three dimensions: teacher ethics first, student-centered, ability-oriented, and lifelong learning.

Table 2.1 Teacher Professional Standards Table

Dimensions	Teacher Standards Secondary indicators	Kindergarten	Primary school	Middle School	Secondary Vocational School
Professional philosophy and teacher ethics	Professional understanding and awareness	√	√	√	√
	Attitude and behavior toward students	√	√	√	√
	Educational and teaching attitudes and behaviors	√	√	√	√
	Personal cultivation and behavior	√	√	√	√
Expertise	Educational knowledge	√	√	√	√
	Professional background knowledge	√	√	√	√
	Course teaching knowledge	√	√	√	√
	General knowledge	√	√	√	√
Professional capabilities	Instructional Design	√	√	√	√
	Training and internship organization	√	√	√	√
	Class Management and Educational Activities	√	√	√	√
	Education and Teaching Evaluation	√	√	√	√
	Communication and Cooperation	√	√	√	√
	Teaching Research and Professional Development	√	√	√	√

From the professional standards for teachers formulated by the state, we can understand the significance of educational work, pay attention to moral education, recognize the professionalism and uniqueness of teachers, and be familiar with curriculum teaching knowledge, including curriculum system, curriculum standards, teaching methods and strategies, etc. In terms of professional knowledge, we must be familiar with curriculum teaching knowledge, including curriculum system, curriculum standards, teaching methods and strategies, etc. We must also have general knowledge, including natural sciences, humanities and social sciences, art appreciation and expression, information technology, etc. In terms of professional ability, we must also have educational and teaching abilities such as teaching design, teaching implementation, and teaching evaluation, as well as certain class management abilities. We must also have the ability of self-reflection, self-development and continuous learning. Through the above analysis, it can be seen that the national professional teacher standards have put forward clear requirements and expectations for teachers' professional quality, professional ability, professional attitude and other aspects. Teachers should carefully study and understand the spirit and requirements of professional standards and implement them in specific educational and teaching practices, formulate development plans based on the "Professional Standards", actively innovate and participate in training, and continuously improve their professional quality and ability to make greater contributions to the all-round development of students.

1.4 Development of professional teachers

The Office of the Basic Education Commission (2014) has proposed guidelines for Develop teachers into professionals as follows:

1) Developing teachers to have the spirit of being a teacher in order for teachers to develop love and faith in the teaching profession, conduct themselves as a good example. Be friendly and merciful to your students and accept differences between people. Be a person of learning and is committed to developing students to your full potential

2) Initiating teachers to organize integrated learning by developing teachers to have knowledge and understanding in learning management Build integration skills which covers curriculum work organizing teaching and learning, evaluation, displaying learning, and research

3) Innovation development Techniques and methods for organizing the learning process that emphasize ICT media (Information and Communication Technology) by encouraging teachers to develop innovations. Learning management media: There is research and development of methods for creating quality media. Develop learning management processes using ICT media (Information and Communication Technology) that are consistent with and respond to the differences of learners.

4). Develop teachers to have the psychology to help develop natural learning and potential. By developing teachers to know and understand nature. Needs and development according to age Discover special abilities of each child and can manage learning for There are places for special children to study together.

5) Increase skills in using English for communication. Research and professional development for teachers by being aware of the importance of English in daily life Daily and academic subjects can use English to exchange information. and seek additional knowledge

Yon Chumchit (2007) mentioned the development of professional teachers as follows:

1) Teacher development must focus on teachers' personal development. This means that in developing teachers Emphasis must be placed on the personal development of each teacher first. This is so that each teacher can develop their potential. to develop fully When teachers are prosperous It is complete and adequate. It is an important factor to join together to help develop the organization to progress and be able to operate to achieve the set goals.

2) Teacher development must focus on covering all aspects. This means that teachers must be developed to have expertise in every aspect, such as knowledge and understanding of new teaching techniques, ability to use tools.

various appliances efficiently Have knowledge and understanding of newly announced government regulations, have knowledge of the country's circumstances, including knowledge and up-to-date knowledge of what is happening or changes. current society

   3) Teacher development must be carried out continuously. This means that the person who is a teacher will not How many qualifications must there be? What level of teaching must be developed continuously from time to time, both because progress is an important characteristic? of human importance other people will respect the knowledge and expertise of a person who has progressed. A person's abilities are related to Understand the work that is being performed and, most importantly, a person who can perform quality work is a person who Valued and should provide support to work in the will continue to hold important positions

   4) Teacher development must focus on eliminating various disadvantages or defects that occur with teachers. general problems in the teaching profession, such as moral and moral deficiencies, slowness in working, lack of enthusiasm for professional advancement, and lack of effective teaching techniques

   5) Teacher development must aim to promote permanent stability and progress for teachers. This means that organizing any activities for teacher development must in addition to having done to cover the principles The above must be done in order for teachers to progress in the profession. Have stability in the profession and always feel proud of their professional work

   In conclusion, the development of professional teachers must be continuously It is systematic and consistent with Teacher development needs educational institutions and agencies with the goal of It is important to promote and support teachers to be able to lead the educational curriculum and put it into practice in the classroom as well as enhancing knowledge. and skills in leading leads to self-development and development of teaching activities that affect development Student quality

Concepts and theories of teacher development

This study starts from the perspective of teacher development, searches for relevant literature, and understands the origin of teacher development research, the concept of teacher development, and the research overview of teacher development at home and abroad. Details are as follows:

2.1 The origins of teacher development

Teacher development theory has been a focus of research in Europe and the United States since the late 1960s, with Fuller pioneering this area through the development of the "Teacher Concern Questionnaire," which opened the prelude to teacher development research (Du, 2002).

Yang Xiuyu (1999) mentioned that the teacher development theory is a theory that focuses on exploring the stage-by-stage development laws of teachers in the entire career development process from pre-employment, employment, employment to resignation. This theory is based on the adult development theory, absorbs the research methods and research results in the fields of philosophy, psychology, physiology, organization management, sociology and human life science, and initially constructs a systematic theoretical system.

Several key stage theories emerged, including Steffy's (1989) five-stage theory of teacher career development, Fessler's (1985) eight-stage theory of teacher career cycle, Burden's (1979) three-stage theory of teacher development, Katz's (1972) four-stage theory of teacher development, and Fuller's (1969) four-stage theory of teacher attention.

Simultaneously, three influential theoretical models of teacher development were established. In 1977, Bergquist and Phillips revisited and revised their earlier work, initially proposed in 1975, in the Handbook of University Teacher Development. This revision expanded their original conceptual model into the "teacher development community model," set within a broader institutional context. Earlier, Gaff (1975) categorized university teacher development into three types: personal development (attitude), teaching development (process), and organizational development (structure). Similarly, Bergquist and Phillips (1975) had introduced a

"conceptual comprehensive model" encompassing teaching development, organizational development, and personal development. These models proposed by Bergquist, Phillips, and Gaff are theoretically robust and offer valuable insights that have been validated and expanded upon by subsequent scholars.

In summary, China's teacher development theory has gone through the stages of vigorous development and exploration and practice from introduction, direct application, reference and application, characteristic exploration, and situational originality, and has initially formed a macro-theoretical system and practice system of "education is the foundation of a century-long plan; teachers are the foundation of an education plan". Entering the new era, teacher development has further risen to the foundation of national strategy, defining teacher development as the foundation of education, the foundation of education, and the source of education. It is the first resource for education development and has become the new focus, new foundation, and new pillar of high-quality development of education in the new era. It is also the foundation for the germination, generation, and practice of new teacher development theories.

2.2 The concept of teacher development

Foreign scholars' definition of teacher development:

Graves (1996) believes that the connotation and extension of teacher development are carried out simultaneously. The connotation development is through personal practice and reflection, and the extension development is to learn from others' experience and theory.

Lange (1990) succinctly defines teacher development as "a process of sustainable development of teachers' intelligence, experience, and perspectives".

Phillips S.R. (1976) defines faculty development as "the process of improving the effectiveness of university teaching."

Gaff (1975) believes that university teacher development is a process of improving abilities, expanding interests, and becoming competent at work, thereby promoting the professional and personal development of teachers.

Andy Hargreves. and Fullan (1974) believes that teacher development is the development of knowledge and skills, teacher development is self-understanding, and teacher development is ecological change.

Domestic researchers define teacher development as follows:

Chen Liang (2016) believes that teacher development is an open and changing ecosystem that includes ecological subjects and ecological environment.

Chu Xiaomei, Jin Rui (2016) believes that teacher development can be called teacher professional development and is an important part of the career development system.

Wang Tianmiao, Ren Zhe (2015) believes that teacher development is actually the process of growing from a novice teacher to an experienced teacher and finally to an expert teacher.

Zhang Hao, Zhang Deliang (2014) believes that teacher development is based on the mutual coordination and mutual promotion of personal development, curriculum and teaching development, and organizational development. Teacher curriculum and teaching development occupies an important position and is the core of teacher development.

Huang Xianhan & Li Zijian (2011) believe that teacher development can be divided into three main orientations: teacher development as knowledge and skills development; teacher development as self-understanding and teacher development as ecological transformation.

Pan Maoyuan (2007) believes that the development of university teachers should include three aspects: teachers' academic level, teachers' professional knowledge and skills, and teachers' ethics.

Xu Li (2007) believes that teacher development is a process of gradual rationalization, improvement and perfection of teachers' educational concepts, knowledge and ability structure and cultural character, and is the result of the interaction between the external environment and the internal factors of teachers.

Chen Caiyan (2007) believes that teacher development should include two aspects: personal development and professional development. Personal

development refers to the development of teachers as a complete person and the satisfaction of their various reasonable needs as a person; professional development refers to teachers having the qualities required of their professional roles and being competent in their work and gaining a sense of accomplishment.

Tan Yongmei (2005) believes that teacher development is based on the teaching profession, with teacher professional knowledge and professional qualities as its connotation, and integrates education and teaching into the common development of society, family and students, achieving the unity of teacher personal development and social development, teacher development and student development.

Zhu Xiaomei (2003) believes that teacher development usually refers to the sustainable development process of teachers' intelligence, experience and views throughout their lives. Reflection is a means and development is an end. Teacher development is the conscious behavior of teachers to improve their professional abilities.

Yang Xiuyu (1999) believes that teacher development is a long, dynamic process that spans the entire career, with both highs and lows.

Bie Dunrong (1987) believes that teacher development is a continuous process.

Overall, teacher development is broadly conceptualized as a dynamic, lifelong process encompassing personal growth, professional advancement, and ecological integration. It involves reflective practices, skill enhancement, and the alignment of individual goals with broader societal and organizational demands. Both foreign and domestic scholars emphasize the interaction between internal and external factors, highlighting its multidimensional and evolving nature.

2.3 Research Overview of Teacher Development

2.3.1 Overview of foreign research

Gao Hongxia (2018) mentioned the American Education Association (NEA) published the report "College Teacher Development: Enhancing National Strength", which identified the development goals of college teachers with personal

development, professional development, organizational development and teaching development as the main contents.

Bergquist & Phillips (2016) proposed the first model of faculty development in colleges and universities, arguing that the three dimensions of faculty development are: personal, instructional, and organizational, and the three components of faculty development are: attitude, process, and structure.

Bergquist & Phillips (2016) revised and supplemented their first teacher development model, believing that the three dimensions of development influence each other and proposed new concepts of community development and institutional development.

Wang Xia & Cui Jun (2015) emntioned Eber and McIlch added curriculum development to the original three dimensions of teacher development, forming the four dimensions of individual, teaching, curriculum and organizational development and Senter added professional development to the development of college teachers, that is, the four aspects of teacher development are: personal development, teaching development, organizational development and professional development.

Feng Cuidian (2014), United Teachers Los Angeles (UTLA 2012), introduced a new Teacher Development and Evaluation Framework (TDEF), which opened up a new teacher development and evaluation model in the Los Angeles school district. He developed ten standards for teacher development and certification based on the five basic core propositions of NBPTS and the ten professional standards of INT ASC (Interstate New Teacher Assessment and Support Consortium). The Wisconsin Department of Public Instruction also designed a teacher self-teaching reflection checklist to help teachers conduct classroom practice evaluation based on the above ten standards, as a personal professional development plan and evaluation file.

Zhang Rong, Hong Ming (2013) mentioned NEA and AFT jointly promoted the establishment of professional development standards for teachers, jointly supported the National Board Certification (NBC) system, and carried out teacher

quality evaluation to eliminate the problem of uneven teacher quality in various states. States in the United States have also begun to implement a developmental evaluation system based on teacher behavior (PBDE), which is mainly to improve the professional level of teachers and make personnel decisions on this basis. Developmental evaluation based on teacher behavior is a procedure to improve the professional performance of teachers. The first six stages of the procedure are formative, accounting for about 95% of the entire evaluation process. The last stage is summative, accounting for about 5% of the entire process. The evaluation subject of this evaluation can be the principal or a special evaluation committee.

Li Dingren & Zhao Changmu (2003) mentioned Shulman believes that the knowledge structure of teachers includes at least seven aspects: knowledge of teaching materials; general teaching method knowledge; curriculum knowledge; teaching method content knowledge; knowledge of students and their characteristics; knowledge of educational contexts; knowledge of educational purposes, goals, values and their philosophical and historical backgrounds. From the perspective of cognitive psychology, Gagne divides teachers' knowledge and skills into: highly organized and refined declarative knowledge; automated basic skill series; flexible and adaptable teaching strategies. American scholar Sternberg proposed the prototype view of expert teacher teaching. He believes that the main difference between novice and expert teachers is their differences in knowledge, efficiency and insight. Knowledge and experience play a very important role in the development of expert teachers. Clark and Peterson divided the teacher's thinking process into three stages: planning, decision-making and thought formation; research by Gage and others showed that teachers with high levels of classroom teaching ability development can help students learn better than the control group.

Tian Aili (2003), further summarized the psychometric paradigm, contextualized evaluation paradigm and personalized evaluation paradigm on this basis.

Li Dingren & Zhao Changmu (2003) proposed the theory that "modern teacher education should be divided into three stages", namely the personal

education stage; the preparatory education stage; and the main stage for improving the professional level of in-service teachers.

Levine (2002) summarized the stages of evaluation paradigm in the development process into psychological evaluation, educational measurement and educational evaluation.

García & Pearson (1994) believe that different assessment paradigms refer to different epistemologies, different teachers, student participation, different standards for evaluating academic performance, and very different assessment impacts.

Gipps (1994) attempts to explain the two perspectives from five dimensions: definition and description, goals and use, quality and value, methods and structure, and evaluators.

Gaff (1975) proposed that the development of university teachers is composed of three dimensions: personal, teaching and organizational. However, teaching development is more important. The goal of teaching development is to promote student learning. Similarly, incentive mechanisms and conflict resolution measures are also contents that must be seriously considered in organizational development.

Over the years, research on teacher development at home and abroad has achieved fruitful results, which has played a positive role in promoting the professionalization of teachers and promoting educational development. Representative works include "Teacher Development", "2000 Teaching Skills for American Elementary and Middle Schools", "Effective Teacher Handbook", "Teacher Career Cycle - Teacher Professional Development Guide", "Teacher Competency", "New Exploration of Teacher Roles and Teacher Development", "20 Keys for Teachers - Educational Methods that Teachers Should Master", "Teacher Evaluation - Enhance Professional Practice", etc.

2.3.2 Overview of domestic research

Wang Yanan et al. (2021) proposed a teacher development index system including five sub-dimensions: teacher supply index, teacher teaching index, teacher

scientific research index, teacher social service index, and teacher reputation index, and evaluated and analyzed the teacher development index of higher vocational colleges.

Han Xianman & Ouyang Min (2020) proposed to construct an evaluation index system for teacher development in higher vocational colleges consisting of 7 first-level indicators, 18 second-level indicators, and 80 third-level indicators, including teacher ethics, teaching, scientific research, international cooperation, social services, professional development, and teamwork.
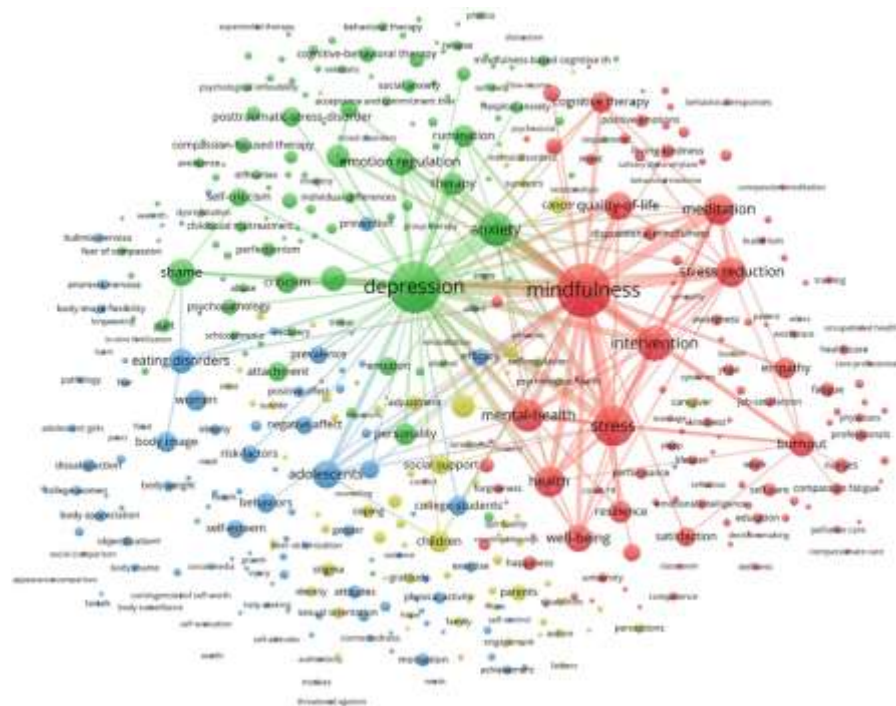
Figure 2.1 Network image of co-occurrence of keywords in
domestic teacher development research
(Source: Wang, 2020)

Li Lin (2020) proposed that the content of the development assessment of higher vocational teachers should be based on four dimensions, 16 aspects, and 37 specific quantitative indicators, including teacher ethics and style construction, education and teaching, scientific research and social services, and personal

development, to construct an evaluation system that is in line with the teachers' own interests and conducive to the rapid self-growth of teachers.

Ji Feifei (2016) proposed a "dynamic university teacher development model". According to the evaluation results, the school will provide customized teacher development for teachers, including teaching development, scientific research development, organizational development and personal development. These four parts can be provided simultaneously or selectively according to the evaluation results.

Chu Xiaomei, Jin Rui (2016) proposed that from the overall perspective of university teacher development, considering the internal and external factors of teacher development, the construction of a theoretical system for university teacher development should be coordinated from three aspects: professional development, career development, and organizational development.

Li Ying (2015) puts forward the needs and focus of development of university teachers at each stage.

Wu Wei & Chen Chunmei (2014) studied the teacher development centers of three British universities from six aspects: goals, functions, activities, institutional settings, special projects and center advantages.

Fu Chenguang, et al. (2014) described the design and development of a training support program that meets the actual needs of young and middle-aged teachers.

Xiong Jingjing (2014) Taking Leiden University and Wageningen University in the Netherlands as examples, three major experiences in the establishment of teacher development institutions in Dutch research universities are summarized.

Wu Qinghua (2013) discusses the development needs of young teachers in local universities.

Huang Shenghao (2013) conducted an analysis using the teacher development institutions of Harvard and Michigan universities as examples.

Yue Juanjuan (2013) proposed to build a teacher professional development ecosystem.

Wang Zhongkui (2012) analyzed the personnel composition and funding sources of the Learning and Teaching Research Center of the University of Michigan from an organizational perspective, and studied the project services and methodological approaches provided by the Teacher Development Center of American universities.

Zhang Deliang (2011) conducted a comparative analysis of the faculty development systems in universities in the United States, Germany, and the United Kingdom.

Zhang Liqing, Kang Dengyuan (2010) proposed that the training of young teachers in applied universities should be strengthened in terms of teacher ethics, professional training, practical ability, incentive mechanism, and growth environment.

Chen Su-na (2009) Research on teacher development centres at the University of Cambridge, University of Bristol and Sheffield Hallam University.

High-frequency keywords such as "teacher professional development", "teacher education", "professional development", and "teacher development" continue to be hot topics for researchers. "college teachers" and "higher vocational teachers" appeared as high-frequency keywords for the first time, indicating that these development issues have begun to attract the attention of researchers and have been fully discussed.

Although my country started late in the field of teacher development research, it has developed rapidly and has achieved relatively rich results. In 1987, the first domestic "Teacher Studies" was published by Tianjin People's Publishing House, edited by Zang Leyuan. At present, the more representative monographs include "Teacher Adaptation and Development", "Foundations of Modern Pedagogy", "Introduction to Modern Teacher Studies", "Modern Teacher Theory", "Teacher Growth and Development", "Curriculum Reform and Teacher Professional Development", etc. At the same time, great progress has been made in the translation of foreign teacher research monographs, such as "New Concept of Teachers - Teacher Education Theory and Practice", "Curriculum and Teachers", and "A Brief History of the Future: From Homo Sapiens to Homo Deus".

Strategy

3.1 Definition of Strategy

The Modern Chinese Dictionary explains (strategy) as follows: 1) The course of action and method of struggle formulated according to the development of the situation; 2) Paying attention to art and methods.

In the book "Learning to Survive", it is mentioned that "the concept of strategy includes the following three viewpoints: 1) Organizing various elements into a coherent whole. 2) Anticipating the occurrence of accidents in the process of things. 3) Having the will to control such accidents. Then, the purpose of strategy is to transform policy into a set of conditional decisions, and to decide the actions to be taken according to different situations that may occur in the future."

In Western management literature, "strategy" refers to "the way of being a general", that is, the way a general uses his troops. Therefore, strategy is also interpreted as tactics, strategies, and policies. The main definitions are as follows:

When studying the strategies for acquiring concepts, Bruner believed that "strategy refers to the way students make decisions in the process of acquiring, retaining and using information in order to achieve a certain goal."

Henry Mintzberg (1987): proposed the "5P" model for designing organizations: Plan, Ploy, Pattern, Position and Perspective. These five models explain the concept of organizational design strategy from different perspectives: First, strategy is a plan. Strategy is a purposeful, predictable and organized action procedure. As a plan, strategy should indicate the direction and path of development, including a series of policies and guidelines for dealing with a certain situation, which belongs to "planning before action". Secondly, strategy is a tactic. Strategy can be a means and tactics in the process of action. According to the environment and the situation of competitors, different measures are taken to achieve strategic goals. It is a tool to defeat opponents in competitive games. Thirdly, strategy is a pattern. Strategy can be reflected in the procedures and norms followed by organizational behavior, that is, the entire strategy is regarded as a movement process of "behavior flow". The two definitions of strategy as a plan or a pattern are independent of each other. In

practice, plans are often not implemented, while patterns may be formed without prior planning. Therefore, the strategy positioned as a "plan" is a designed strategy, while the strategy defined as a "model" is an implemented strategy. Fourth, strategy is a positioning. Strategy is an organization's judgment of the unknown in its environment. To regard strategy as a positioning is to form effective competitiveness through the correct allocation of resources. Finally, strategy is a concept. Strategy expresses the organization's inherent way of cognition of objective time and reflects the value orientation of the enterprise. Strategy is a definition of a concept, emphasizing the abstractness of strategy. Its essence lies in that, just as spiritual contents such as values, culture and ideals are shared by members of the organization, strategic concepts must be shared through the expectations and behaviors of members of the organization.

Ohmae Kenichi (1981) proposed that the only goal of strategic planning is to design an organization to gain more advantages than its competitors as efficiently as possible. Therefore, strategy means trying to change the power of the organization in the most efficient way, so that it can surpass its competitors.

WF Glueck (1980) believed that strategy is a unified, coordinated, comprehensive and integrated plan designed to achieve the basic goals of an organization.

Alfred D. Chandler (1962) defines strategy as: a design of the long-term goals and decisions of an organization, and the actions and assets to be taken to achieve those goals.

The Stanford Center for Strategic Studies believes that strategy is a means to pursue goals. In the process of forming this means, it reflects changes in the design organization's environment, the use of major resources, and guidance on the development direction of the design organization.

Kenny Andersen defines strategy as follows: Strategy is the form of goals and the major policies and plans for achieving them, determining the business an organization is to undertake and the category to which the organization should belong.

Chinese psychologist Zhang Qinglin and others believe that: "Cognitive strategies do not focus on specific knowledge content. To a large extent, they do not depend on content, but can be generally applied to all types of information. Therefore, strategies are an abstract and general method."

In summary, strategy is an action plan, a series of decisions and actions implemented to achieve the desired goals. Strategy includes setting goals, determining action plans, determining resource allocation and coordinating execution, using limited resources in the best way, coping with uncertain environments and risks, and achieving long-term development and short-term profit maximization of the organization. In the organizational field, strategy emphasizes integrity, long-term, systematic and dynamic. It is a complex process that requires in-depth analysis of the environment, internal resources and capabilities, and the use of effective management tools and methods for continuous optimization and adjustment.

The core of strategy is the decision-making arrangements made to achieve the predetermined goals. It needs to fully consider internal and external environmental factors, including opportunities, threats, strengths and weaknesses, in order to formulate the most appropriate plan. Strategy formulation requires comprehensive analysis and evaluation to determine the feasibility and path to achieve the goal, while also considering potential risks and formulating corresponding countermeasures.

3.2 Research Tools for Developing Faculty Development Strategies

Johnson G, Scholes K (1999) proposed the PEST analysis method, which is a method used by strategic consultants to help companies review their external macro environment. It refers to the analysis of the macro environment, which is also called the general environment, and refers to the various macro forces that affect all industries and companies. When analyzing macro environmental factors, different industries and companies will have different specific contents of the analysis based on their own characteristics and business needs, but generally, they should analyze

the four major external environmental factors that affect the company, namely, political, economic, social, and technological.

Figure 2.2 PEST model diagram

(Source: Alfred D. Chandler, 198)

Heinz Weihric (1982) proposed the SWOT analysis method, which is a method that can objectively and accurately analyze and study the actual situation of a unit. The four letters of SWOT stand for Strength, Weakness, Opportunity, and Threat. SWOT can be divided into two parts: the first part is SW, which is mainly used to analyze internal conditions; the second part is OT, which is mainly used to analyze external conditions. The various factors obtained from the survey are sorted according to the importance or degree of influence, and the SWOT matrix is constructed. After completing the environmental factor analysis and the construction of the SWOT matrix, the corresponding action plan can be formulated. The basic idea of formulating a strategy is to give play to the advantages, overcome the weaknesses, use the opportunities, and resolve the threats; consider the past, based on the present, and look to the future. Using the comprehensive analysis method of system analysis, the various environmental factors that are arranged and considered are

matched and combined to obtain a series of options for the company's future development.

Figure 2.3 SWOT analysis chart

(Source: Johnson G, Scholes K, 1999)

The McKinsey 7S Model, referred to as the 7S model, is the seven elements of corporate organization designed by the McKinsey Consulting Company Research Center, including structure, system, style, staff, skill, strategy, and shared values. The McKinsey 7S model is an organizational diagnostic tool that comprehensively deconstructs the organization from seven aspects, including structure, system, style, staff, skill, strategy, and shared values, to help find the problem points of the organization and solve the problems to improve organizational effectiveness. The model can not only be used for overall planning of the enterprise, but also for specific project management, helping managers to identify the elements that need to be adjusted under specific goals and achieve dynamic balance. The model was originally proposed by two Stanford University management master scholars in the

1970s and 1980s. Through visits and in-depth investigations of 62 large companies in the United States, they summarized the common characteristics of these successful companies and proposed the McKinsey 7S model based on the seven elements of corporate organization designed by the McKinsey Consulting Company Research Center as the research framework.

Figure 2.4 McKinsey 7S model
(Source: McKinsey, 235)

To sum up, the current methods of strategy formulation mainly include SWOT analysis, McKinsey 7S model and PEST analysis. The McKinsey 7S model focuses on internal environment analysis, and PEST analysis focuses on external environment analysis. Through SWOT analysis, a comprehensive diagnosis of teacher development will be conducted, strategies will be given, and feasibility assessments will be conducted.

3.3 Steps to developing a strategy

Zhang Chao (2018) Strategic management is an important management link in the development of modern enterprises. It refers to the process by which enterprises combine internal and external environments to build perfect long-term development

goals and implement and control strategies. It is carried out through four aspects: 1) internal and external strategic environment analysis, 2) formulation of overall strategic goals and ideas, 3) preparation of strategic measures planning, and 4) evaluation of strategic implementation.

Pan Haiyang & Xie Rongrong (2016) Analysis of specific steps in formulating corporate marketing strategies: 1) Clarify corporate marketing tasks; 2) Comprehensively consider the market environment in which the company is located; 3) Clarify the marketing strategic goals of modern enterprises; 4) Determine implementation plans and actions based on plans; 5) Apply, modify, evaluate and improve strategies.

To sum up, I think there are four steps to formulate a strategy. The first step is to clarify the goal; the second step is to analyze the internal and external environment; the third step is to formulate a clear strategy; and the fourth step is to evaluate and revise the strategy.

3.3.1 Theoretical analysis

After half a decade of development, various theories have been formed at home and abroad, such as the theory of teacher development stages, the theory of expert teachers, the theory of teacher reflection, the theory of teacher psychology, the theory of teacher development model, the theory of teacher education, etc.

Table 2.2 Theory of comprehensive development of a person

Source	Content
1844 manuscript"	Marx believed that human development is "man's possession of his comprehensive essence in an all-round way, that is, as a complete person."
Theses on Feuerbach	Marx believed that in a special sense, the essence of man is not a certain aspect of social relations, but the sum of all social relations in which he lives. The richness and comprehensiveness of social relations determine the richness and comprehensiveness of human nature. If human social relations develop comprehensively, people will naturally develop comprehensively.
Ron Miller	The teacher development theory is called holistic education.
Chinese leader's July 1 speech	Putting forward the important idea of unifying the all-round development of people and the all-round development of society in the fundamental interests of the people not only theoretically restores the original appearance of the theory of the all-round development of people, but also enriches and develops Marxism based on the practice of building socialism with Chinese characteristics, laying the ideological and theoretical foundation for people to correctly grasp and fully implement the education policy and promote the all-round development of members of society.
Chinese leaders in the new era	Chinese leaders have stressed the need to adhere to a people-centered development philosophy, and have especially pointed out on many occasions the need to "continuously promote the all-round development of people."
Zhijiang New Language	General Secretary Xi Jinping pointed out: "Human beings are essentially cultural beings, not 'objectified' beings; they are dynamic and comprehensive beings, not rigid and 'one-dimensional' beings."

Based on the "source" or "meta" theory of teacher development, the main theories formed are the theory of comprehensive development of people and the theory of whole person development. Details are as follows:

Table 2.3 Holistic development theory

Source	Content
1970s North America	The educational thought that aims to promote the overall development of people has formed a global holistic education reform movement.
Education 2000: The Point of Holistic Education	Proposed ten principles of holistic education
Yoshiharu Nakagawa learned from Ron Miller	Explore Western holistic education using Eastern cultural concepts such as tolerance, non-existence, reason, and Tao, as well as Eastern methodologies such as meditation and contemplation.
Wang Guowei, a scholar in the late Qing Dynasty	In 1903, he proposed the definition of "man is a complex of knowledge, emotion and will", and put forward a holistic education model that develops morality, intelligence, physique and aesthetics.
Qian Mu	"Chinese education is particularly focused on holistic education.

In short, the education of all-round development of people is to promote the all-round development of individuals and promote a new development model. It requires teachers to have both skills, professionalism and dedication, which makes the responsibility of teachers very heavy, and requires the comprehensive and coordinated development of physical and mental talents and virtues; all-round development is a new trend in the development of contemporary teachers. It aims

to cultivate "complete people" with broad knowledge and all-round development, that is, the so-called "whole person". The concept of "whole-person development" embodies the equality, popularization and personalization of teacher development, that is, equal development opportunities, and is for the lifelong development and career growth of teachers; respecting teachers and valuing education is a fine tradition of the Chinese nation and also a fine tradition of the Communist Party of China. Since the reform and opening up, the Communist Party of China has regarded teachers as intellectuals as part of the working class and as the foundation for cultivating builders and successors with all-round development of morality, intelligence and physique; my country attaches great importance to the training, growth and reform and development of teachers' education. "Education is the foundation of a century-long plan; teachers are the foundation of an education plan" is the consensus of the whole society on education development and teacher development formed since the reform and opening up, which contains the thought of people's teachers in the new era.

3.3.2 Practical analysis

Table 2.4 National leaders' important speech on teacher development

National leaders	Source	Related information
General Secretary Xi Jinping (2018)	National Education Conference	Strengthening the Party's overall leadership over education is the fundamental guarantee for running education well. Party organizations in education departments and schools at all levels and of all types must strengthen the "four consciousnesses" and firm up the "four self-confidences", unswervingly safeguard the authority and centralized and unified leadership of the Party Central Committee, and consciously maintain a high degree of unity with the Party Central Committee in terms of political stance, political direction, political principles, and political path.
General Secretary Xi Jinping (2020)	Symposium of experts from the fields of education, culture, health and sports	During the 14th Five-Year Plan period, we must fully implement the Party's education policy from the perspective of the overall development of the Party and the country, adhere to the priority development of education, and persist in educating people for the Party and the country. We must strive to provide education that satisfies the people, and cultivate new people of the era who are capable of shouldering the great responsibility of national rejuvenation in the new journey of accelerating the modernization of education.

Table 2.4 (Continued)

National leaders	Source	Related information
General Secretary Xi Jinping (2021)	Visiting Tsinghua University	The construction of first-class universities must adhere to the leadership of the Party, adhere to the guiding role of Marxism, fully implement the Party's education policy, adhere to the socialist direction of running schools, seize historical opportunities, keep pace with the times, base ourselves on the new development stage, implement new development concepts, and serve the construction of a new development pattern. We must better combine the development of science and technology as the first productive force, the cultivation of talents as the first resource, and the enhancement of innovation as the first driving force, and better serve reform and opening up and socialist modernization.
General Secretary Xi Jinping (2018)	National Education Conference	What kind of people should be cultivated is the primary issue of education. Our country is a socialist country led by the Communist Party of China. This determines that our education must take the cultivation of socialist builders and successors as its fundamental task, and cultivate generations of useful talents who support the leadership of the Communist Party of China and our socialist system and are determined to fight for socialism with Chinese characteristics for life. This is the fundamental task of education work and the direction and goal of education modernization.

Table 2.4 (Continued)

National leaders	Source	Related information
General Secretary Xi Jinping (2019)	Symposium for teachers of ideological and political theory courses in schools	We must improve the curriculum system, solve the problem of coordination between various courses and ideological and political courses, encourage famous teachers to give lectures in ideological and political classes, solve the problem of promoting the complementary relationship between other faculty and staff and ideological and political teachers, promote ideological and political work to penetrate the talent training system, and give play to the integrated, embedded, and infiltrated synergy effect of moral education and character building.
General Secretary Xi Jinping (2021)	Visited and attended the Fourth Session of the 13th National Committee of the Chinese People's Political Consultative Conference	Education is a major national and party strategy. We must adhere to educating people for the party and the country from the perspective of the overall development of the party and the country, integrate moral education into all aspects of ideological and moral education, cultural and knowledge education, and social practice education, and run through all areas of basic education, vocational education, and higher education, and reflect it in all aspects of the construction of the discipline system, teaching system, teaching material system, and management system, so as to cultivate the soul, enlighten the mind, and nourish the heart.

Table 2.4 (Continued)

National leaders	Source	Related information
General Secretary Xi Jinping (2016)	Visit to Beijing Bayi School	We must deepen reforms in the school running system, management system, funding system, examination and enrollment and employment system, deepen reforms in the school's internal management system, personnel and salary system, teaching management system, deepen reforms in talent training models, teaching content, methods and approaches, so that education at all levels and of all types will better conform to the laws of education and the laws of talent growth.

To sum up, in the new era, in order to implement the Party's education policy, fulfill the fundamental task of cultivating morality and cultivating people, and actively adapt to the new requirements of education modernization for the construction of the teaching staff, the core task of my country's teacher education has shifted from expanding the scale of teacher education to solve the problem of teacher shortage to leading the high-quality development of the teaching staff. In the deepening stage of teacher education development, the Party's teacher education policy is based on the trend of international teacher professional development and the characteristics of my country's national conditions, highlighting the cutting-edge, innovative and leading nature of the policy, and striving to build a teacher education system with Chinese characteristics. From the overall to the specific, it focuses on refining the content of teacher education, standardizing the teacher education process, innovating the teacher education model, promoting educational equity, and providing strong teacher guarantee and talent support for the development of higher quality and more equitable education.

3.4 Strategic analysis

3.4.1 Strategic analysis for teacher development

Zhang Lina & Li Wenjing (2023) mentioned talent cultivation has become one of the key points of strategic development in various countries, and digital transformation has become one of the core issues for the high-quality development of global vocational education. The purpose of the digital transformation of vocational education is "human transformation", that is, promoting the development of digital literacy of stakeholders such as vocational education teachers and students is the fundamental goal.

Zhou Yao (2023) mentioned the professional skills specialization of full-time teachers in higher vocational colleges is reflected in their in-depth understanding of professional fields, the specialization of teaching methods, the specialization of practical teaching, and the cultivation of professional qualities and professional ethics. These specializations enable full-time teachers to better perform their teaching duties and provide high-quality education.

Zhang Xiaofang (2023) mentioned the dynamic mechanism of teacher professional development includes multiple mechanisms and methods, namely, the interaction between the structural elements of the internal and external relationships of teacher professional development, the structural elements that realize theoretical innovation and practical innovation of teacher professional development, and the interaction between various integration elements. It is an organic whole composed of various elements. The various elements of the dynamic mechanism of teacher professional development must be organically combined and synergistic to achieve the best effect.

Liu Huagui (2023) mentioned teaching style is a kind of teaching feature with individual characteristics formed by teachers in long-term teaching practice. It integrates educational ideas, teaching propositions, teaching emotions, and teaching styles. It is a sign that teachers' educational art is becoming mature. The Ministry of Education issued the "Opinions on Strengthening and Improving the Teaching and Research Work of Basic Education in the New Era", which clearly pointed out that it is necessary to "give full play to the important role of teaching and research institutions in promoting regional curriculum teaching reform, teaching diagnosis and improvement, curriculum teaching resource construction, and cultivating and promoting excellent teaching achievements".

Chen Dawei & Tang Haikang (2020) mentioned how to use teaching style in teaching practice. On the one hand, teachers should fully demonstrate their teaching style in teaching practice and give play to the educational power and social influence of their teaching style; on the other hand, they should be vigilant in the use of their own teaching style, pay attention to moderation and restraint, and avoid students becoming narrow-minded and biased under the influence of one style. In other words, teaching propositions and teaching styles can be distinct and unique, but they need to be balanced and moderate in practical application.

Jiang Jiaxin (2019) mentioned the organizational structure can reflect the rationality and effectiveness of the organization. A scientific organizational structure is an important guarantee for the effective operation of the organization. The

organizational structure is affected by many factors such as organizational philosophy, organizational environment, organizational function, and organizational resources. These factors are constantly changing with social and economic development. Therefore, the development of the organizational structure is dynamic, that is, it completes dynamic self-development and improvement under dynamic influencing factors.

Li Yue (2019) mentioned the professional values of college teachers are closely related to their understanding of teaching objectives, the correctness of teaching methods, and career guidance for students. In other words, teachers' professional values have a very important influence on their educational thoughts and behaviors.

Han Ying (2018) mentioned China's higher education has developed rapidly since the founding of the People's Republic of China. The management system of higher education institutions and the teacher management system have been continuously explored and improved through learning and reference, forming a teacher management system with Chinese characteristics and the imprint of the times.

Yang Jianlin (2015) mentioned analyzing organizational and social factors, formulating action plans and specific measures, and professional teachers formulating and implementing career plans can effectively promote the quality-oriented school development in the talent-based school development project.

Hao Li (2015) noviced teachers pay more attention to survival and survival, and pay more attention to teaching preparation and teaching design, but it is difficult for them to take into account the personalized needs of students. Their teaching evaluation ability is also weak, and they tend to evaluate students' learning status from their own perspective; Experienced (experienced) teachers pay more attention to the formation of individual unique teaching experience. Teachers at this stage are more familiar with the subject teaching content and have more mature classroom teaching ability, but the teaching "preconceptions" formed over a long period of time make it difficult to promote their further development, and they may

even be satisfied with the status quo and stop acquiring new knowledge; Expert teachers pay more attention to the formation of unique ideas, styles and propositions. Teachers at this stage can deal with educational problems more flexibly, have insight into students' learning status, and have a higher teaching reflection ability. The unique teaching style they form can also be recognized by students, parents and colleagues.

Li Zhifeng et al. (2012) mentioned the modern university teacher management system is an institutional arrangement centered on liberating the academic productivity of teachers. Through institutional arrangements, it aims to maximize the inherent potential of teachers in pursuing truth, devoting themselves to learning, innovating knowledge, and cultivating high-quality talents, thereby realizing a system of rules for the academic development of teachers and organizational development. It has very obvious academic characteristics. The value orientation with academic development as the core and teacher development as the center is a process of continuously achieving a high degree of unity between the academic development goals of teachers and the organizational development goals. It organically integrates the spiritual pursuits of teachers, individual needs and the realization of the university's mission, and becomes an effective and stable institutional guarantee mechanism.

Fang Chengzhi (2010) studied in the practice of education and teaching, the two basic ways for teachers to develop their professionalism are individual reflection and peer assistance. In a general sense, the professional development of teachers refers to the professional growth that teachers gain through continuous experience and reflection. The construction of teaching teams is a factor that cannot be ignored. In the practice of education and teaching, the two basic ways for teachers to develop their professionalism are individual reflection and peer assistance. In a general sense, the professional development of teachers refers to the professional growth that teachers gain through continuous experience and reflection. The construction of teaching teams is a factor that cannot be ignored. It is also the

only way to create new teachers, improve the quality of teachers, and promote the professional growth of teachers.

After literature review, the 7S model of teacher development was constructed.

This study used the 7S model to analyze the internal environment of teacher development projects. We found that the strategies, structures, systems, staff, skills and shared values in the 7S model all have an important impact on teacher development. The 7S model provides teachers with a comprehensive growth framework, including personal career planning, teaching skills and scientific research improvement. Under the guidance of the 7S model, teachers can better improve themselves and achieve both personal and professional development.

Figure 2.5 McKinsey 7S model for teacher development

(Source: Li Zhifeng et al., 248)

Zhao Xueting & Yang Gaoxueer (2024) studied higher "knowledge integration ability", "information literacy ability" and "comprehensive education ability" will become the necessary abilities of vocational education teachers for future social development.

Zhang Maocong & Li Yan (2024) studied the digital transformation of higher education is a systematic revolution in the physical environment, teaching form, education model and management paradigm of colleges and universities. The profound changes in the professional environment and teaching environment of colleges and universities in the era of digital education have triggered the demands of college teachers in updating professional concepts, expanding professional knowledge, improving professional capabilities, and shaping professional sentiments.

Bao Jinlong (2024) researched the application of emerging technologies in the field of education forces us to deeply explore the intrinsic relationship between teachers' professional development and emerging technologies, and at the same time requires us to continuously explore how the integration effect of emerging technologies and the field of education will affect teachers' professional development. Focusing on the requirements and difficulties of teachers' professional development in the context of the application of emerging technologies in education, this paper proposes a practical path, hoping to provide a theoretical basis and methodological guidance for teachers' professional development.

Cui Shiquan (2023) mentioned there is a certain contradiction and tension between the teacher professional development incentive policy based on "efficiency logic" or "power logic" and the internal needs of teacher professional development, which is the root cause of the dilemma of teacher professional development. In the future, the teacher professional development incentive policy needs to be more based on internal incentives. The government's main responsibility is to serve rather than control. The government needs to empower teachers' professional development more.

Li Yan & Zhang Cuiling (2018) studied from the perspective of social factors, it is mainly manifested in social expectations and requirements. With the improvement

of the national economic level, people pay more attention to education, so the task of cultivating excellent students falls on teachers. In higher vocational colleges, more attention should be paid to the combination of students' theory and practical operation, and the school-running policy of "school-enterprise cooperation" should be adhered to. During the winter and summer vacations, teachers should also be assigned to corporate positions for on-the-job training.

Mao Yongzheng & Wang Lihong (2008) studied teacher education policy is the beacon of teacher education reform and development. Reflecting on the development process of teacher education in New China, in different historical periods and stages of teacher education development, teacher education policy has always influenced the process and direction of teacher education reform and development, either strongly or weakly, explicitly or implicitly.

Tang Cui & Zhou Xiaolu (2005) studied that should vigorously strengthen the cultivation and training of technical workers, especially senior technical workers and technicians; strengthen practical teaching and improve the professional ability of the educated; adhere to the balance between academic education and vocational training, and implement a flexible school-running model and learning system; and follow the principle of "practicality first, sufficient and appropriate".

Huang Mincheng (1994) researched improving treatment is the basis for improving social status, and improving the level is the key to improving social status. In the case of low teacher treatment, in the process of reform involving the adjustment of interest relations, in order to protect the vital interests and enthusiasm of teachers, it is necessary to emphasize improving teacher treatment.

After literature review and research, this study uses PEST analysis to understand the macro-environmental factors of teacher development such as politics, economy, society and technology in order to better cope with changes. Through the analysis of the macro-environment, development strategies that are in line with the current environment are formulated to promote personal professional development, help teachers improve their adaptability to different environments, and better cope with future challenges and opportunities.
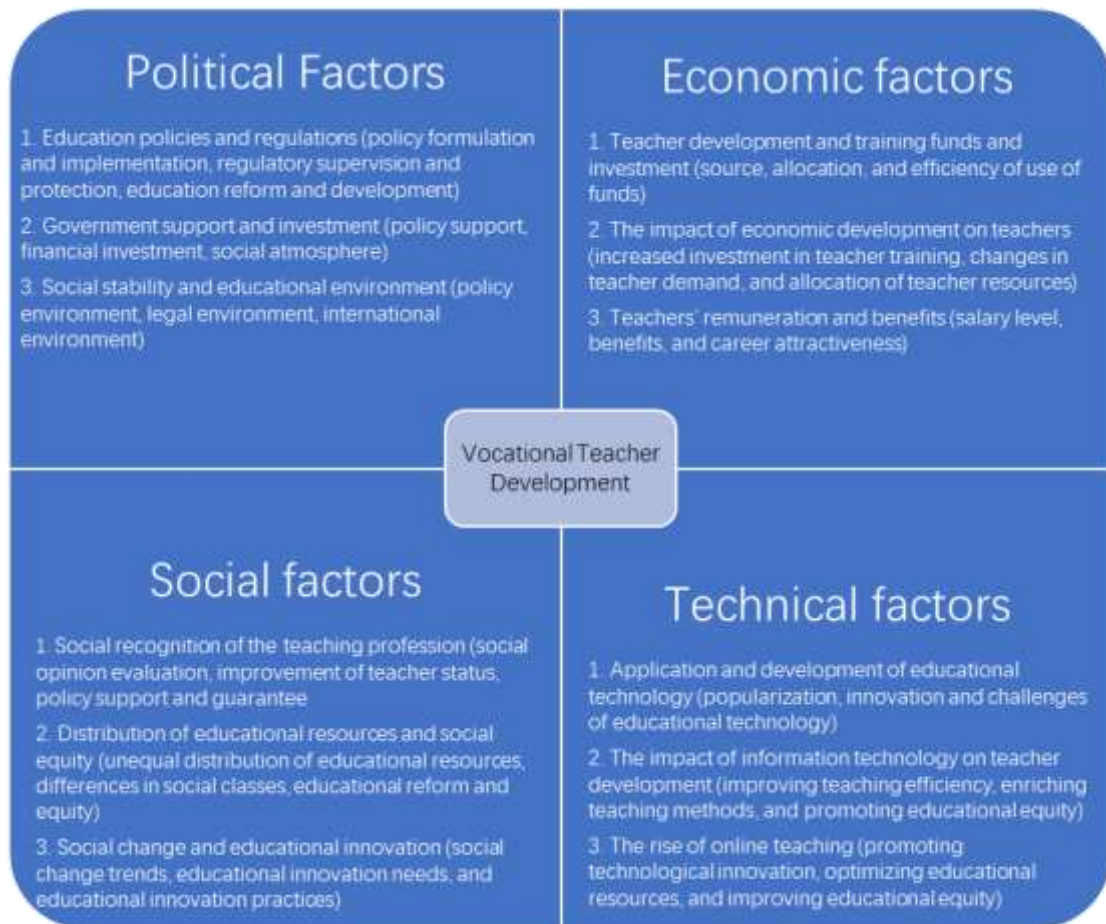
Figure 2.6 PEST analysis of teacher development
(Source: Huang Mincheng, 285)

He Yunfeng et al. (2023) studied entering the new era, the education priority development strategy has actually shifted to high-quality development on the basis of basically solving the problem of quantitative growth, emphasizing the connotation construction of education and educational equity, and put forward many new and special requirements for teacher education: 1. Put forward many new and special requirements for teacher education; 2. Teacher education in the new era needs to focus on cultivating the lifelong learning ability of future teachers; 3. Teacher education in the new era needs to make every effort to improve the comprehensive digital technology literacy and ability of future teachers; 4. Teacher education in the new era needs to pay attention to the ethical spirit of future teachers.

Hao Li (2015) studied direct experience and emotional arousal factors that affect the sense of teaching efficacy constitute the internal driving force of teachers' professional development, while alternative experience and verbal persuasion provide strong external support for teachers' professional development. Under the dual effects of internal "pull" and external "push", a higher sense of teaching efficacy of teachers can promote the professional development of teachers at different development stages.

Li Jian (2009) researched although teachers' learning and professional development have different levels from different theoretical perspectives, the professional development process of most teachers can be divided into novice, experienced (experienced) and expert teachers. Because teachers' professional development is dynamic and nonlinear, not all novice teachers can eventually become expert teachers. To complete this process, teachers' efforts, abilities and external opportunities are also needed.

After literature review and research, through SWOT analysis, this study clarifies the advantages and disadvantages of the development of higher vocational teachers, better identifies opportunities and challenges in career development, formulates coping strategies, helps teachers reflect and summarize, promotes the improvement of personal professional ability and comprehensive quality, and helps higher vocational teachers develop high-quality development.
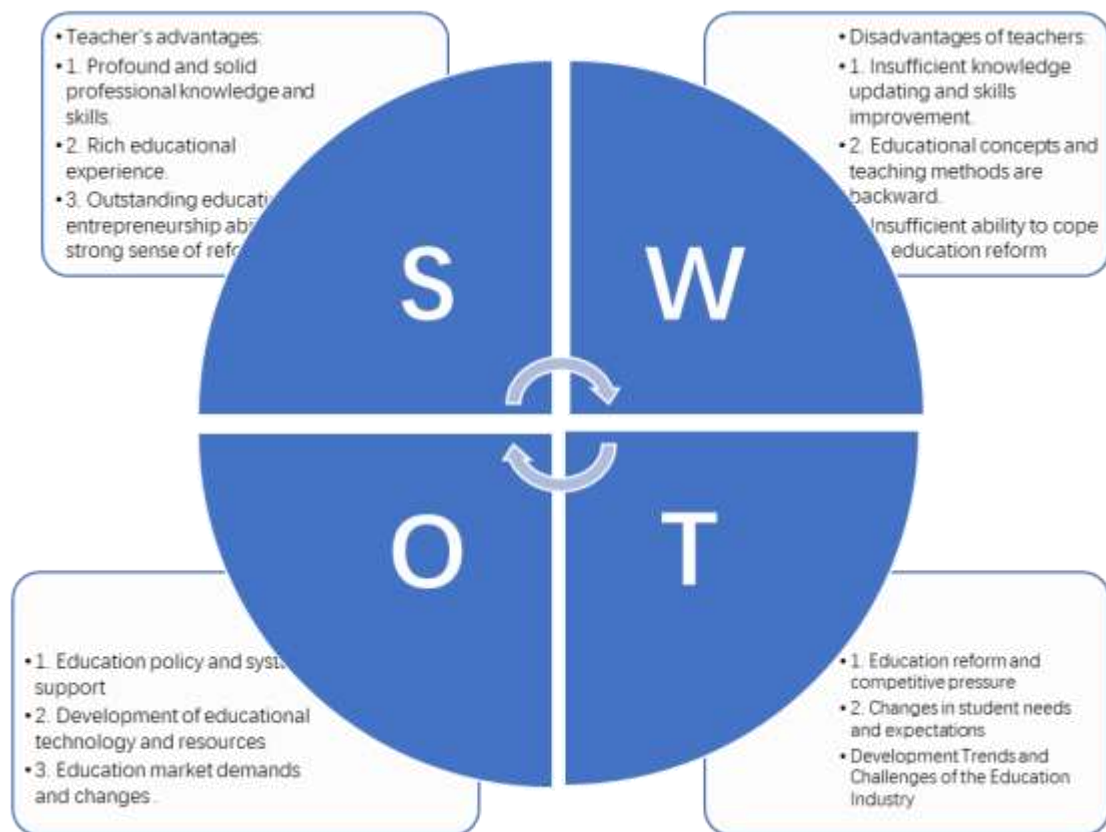
Figure 2.7 SWOT analysis of the development of higher vocational teachers
(Source: Li Jian, 298)

3.4.2 Factors Affecting Teacher Development in the New Era

Although Chinese scholars have conducted a considerable number of case studies on foreign countries, especially universities, and introduced relevant theories of teacher development, my country is still in its early stages in terms of the depth and breadth of research and the practice of teacher development. There are many problems and deficiencies in the study and sorting out of existing research results. The problems are as follows:

Table 2.5 Problems and deficiencies in teacher development research

No.	Problems and shortcomings in research on teacher development
1	Research on teacher development focuses on the perspectives of social development and educational reform, and provides relatively little practical and methodological guidance for teachers' professional development.
2	Most studies are conducted from the perspective of teachers "educating others", but relatively less attention is paid to how teachers "educate themselves".
3	There is a lack of comprehensive understanding and research on teachers from the perspective of "people".
4	There are many studies that conduct grand narrative-style research that is divorced from teachers' professional survival status, educational life contexts and their own practices. However, there are relatively few studies that focus on the integrity and diversity of teachers' roles, and delve into teachers' professional existence status, educational practice contexts, and teachers' own practical participation.
5	There is a lack of comprehensive examination of the teacher growth process from a longitudinal perspective.
6	There is a lack of systematic research on the factors that influence teacher growth.
7	There is a lack of systematic research on the measurement and evaluation of teacher development.

Wang Yanan et al. (2021) researched the study constructed an evaluation index system for the teacher development index of higher vocational colleges, which includes five sub-dimensions: teacher supply index, teacher teaching index, teacher scientific research index, teacher social service index, and teacher reputation index.

Li Lin (2020) proposed that the content of the development assessment of higher vocational teachers should be based on four dimensions, 16 aspects, and 37

specific quantitative indicators, including teacher ethics and style construction, education and teaching, scientific research and social services, and personal development, to construct an evaluation system that is in line with the teachers' own interests and conducive to the rapid self-growth of teachers.

Gao Hongxia (2018) studied the report "College Teacher Development: Enhancing National Strength", which identified the development goals of college teachers with personal development, professional development, organizational development and teaching development as the main contents.

Wang Xia, Cui Jun (2015) mentioned Eber and McIlch added curriculum development to the original three dimensions of teacher development, forming the four dimensions of personal, teaching, curriculum and organizational development.

Wang Xia, Cui Jun (2015) mentioned Senter added professional development to the development of college teachers, that is, the four aspects of teacher development are: personal development, teaching development, organizational development and professional development.

Zhang Hao, Zhang Deliang (2014) proposed that attention should be paid to the impact of teachers' organizational development, personal development, and concept development on teachers' curriculum and teaching development, so that the constructed theoretical framework can effectively guide university teachers' curriculum and teaching development practices.

Yue Juanjuan (2013) believed that the teacher development model is an organic whole of five factors: practice, innovation, support, learning, and responsibility. Only through comprehensive consideration and improvement can the expected goals of teacher development be achieved.

Chen Ping (2007) believed that subject knowledge, professional knowledge and ability, personality factors, environmental factors, and educational practice constitute the basic model of teacher development.

Bergquist & Phillips (1975) proposed the first model of teacher development in colleges and universities, believing that the three dimensions of teacher development are: personal, teaching and organizational, and the three components

of teacher development are: attitude, process and structure, and finally formed a "conceptual comprehensive model".

Gaff (1975) proposed in "University Teacher Update" that the development of university teachers is composed of three dimensions: personal, teaching and organizational, but teaching development is more important. The goal of teaching development is to promote student learning. Similarly, incentive mechanisms and conflict resolution measures are also contents that must be seriously considered in organizational development.

Bergquist & Phillips (1975) revised and supplemented their first teacher development model, believing that the three dimensions of development influence each other, and proposed new concepts of community development and institutional development, namely the teacher development community model.
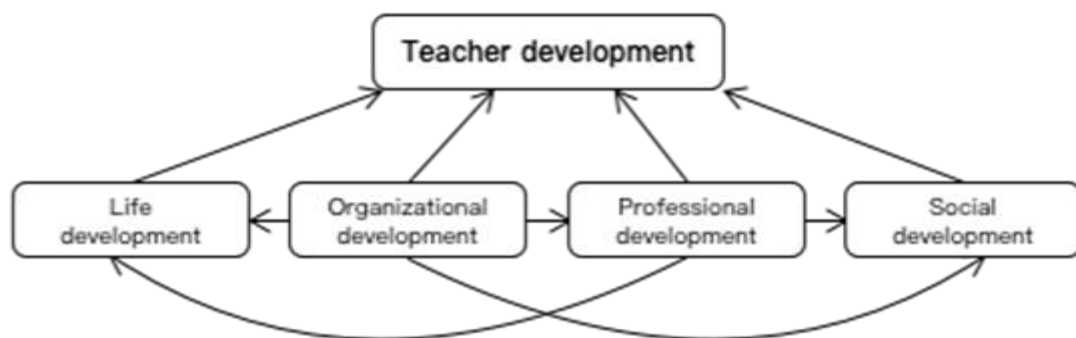
Figure 2.8 Factors of teacher development

(Source: Bergquist & Phillips, 325)

Based on the reference of relevant research at home and abroad, combined with McKinsey 7S analysis, pest analysis and SWOT analysis, this study believes that teacher development refers to the continuous process of teachers' career growth from novice teachers to experienced teachers and even expert teachers in the educational ecology and school environment, under the joint action of internal and external forces, and the integration and growth of the "four dimensions" of life value,

cultural heritage, social responsibility and professional development. As shown in the figure:

3.5 Strategies for developing into a professional teacher

3.5.1 Preparation for teaching

Academics have the strategy for developing to become a professional teacher has been set out as follows:

Aporn Jaitiang (2013) said that preparing for teaching has the following process.

1) Study the course Teacher's manual and various teaching materials to create lesson plans.

2) Educate students to know basic knowledge. Previous experiences, abilities, and interests serve as information for preparing for teaching.

3) Write a lesson plan

4) Prepare teaching materials. Document or test as well as the things that support Make various facilities ready before teaching.

Chamnong Phrayamkhae (2007) said that preparing for teaching has the following process.

1) Study the course Lesson plans and teaching schedule

2) Determine the structure, content, and experience.

3) Set the concept of the subject to be taught.

4) Determine teaching methods and activities.

5) Prepare media for the learning environment.

6) Basic testing and preparation of students

In conclusion, preparation for teaching means teachers' preparation for teaching and students are ready when they start learning. Therefore, teaching with teaching preparation is teaching that develops and organizes learning activities.

3.5.2 Organizing learning activities

The Ministry of Education (2017) has specified the process of organizing Learning activities using 6 thinking that questions include the following steps:

1) Preparation for learning management

1.1 Study the curriculum, prepare a curriculum analysis table. to check compliance Relate to principles, goals, learning standards, and course descriptions to create learning units. and design learning management

1.2 Determine teaching techniques and teaching activities that are consistent with item 1.1 by using a variety of teaching techniques.

1.3 Explore the elements used in learning management.

1.3.1 Prepare media and learning resources

1.3.2 Prepare a variety of comprehensive evaluation tools. Both aspects of knowledge, range, skill range, mental range and emphasis on evaluation according to actual conditions.

Aporn Jaitiang (2013) mentioned the process of organizing learning activities. of the teacher by Please consider the following points.

1) Follow the regulations Follow the sequence of steps planned in the lesson plan.

2) Use appropriate teaching skills such as explaining, using words, gestures, writing on the blackboard.

3) Use teaching techniques that promote student learning, making students learn well. The best by using many teaching methods and and proceed with teaching in a systematic way

4) Emphasis on allowing students to participate in teaching and learning activities. Don't practice it yourself.

5) Use appropriate teaching media that is consistent with the lesson and promotes learning.

6) Use the principles of learning psychology correctly, such as encouragement, motivation, training, giving work according to one's abilities. Each person's aptitude Teaching from easy to difficult

7) Create an atmosphere that promotes learning both materially and mentally, such as clean, bright, spacious classrooms, teachers who are kind and not strict and harsh.

8) Use evaluation methods that are consistent with teaching objectives.

Tisana Khaemmanee (2007) gives the meaning of organizing learning activities as follows:

1) Organizing learning activities is individual work and cannot be done in place of each other. Teachers who want students for learning to happen, you must give him the opportunity to have a learning experience on his own.

2) Organizing learning activities is an intellectual process that requires the use of thinking processes to create understanding. The meaning of things. Therefore, teachers should encourage students to use thinking processes to understand things.

3) Organizing learning activities is a social process. Because it can be thought about the same thing. Many aspects causing expansion Complete the knowledge message Verify the correctness of learning according to Society accepts it too. Therefore, teachers who want students to learn must provide opportunities for students to have social interactions with other people or other resources

4) Organizing learning activities was a fun activity. It is a joyful feeling because liberation from ignorance leads to a desire for knowledge, wanting to know more because it is fun. Teachers should therefore create a situation where Does it stimulate curiosity? Some frustration Students will find Please answer in order to escape from your doubts. And happiness arises from learning when you find the answer yourself.

5) Organizing learning activities is continuous lifelong work. The boundaries of knowledge can be expanded endlessly. Teachers should therefore create activities that stimulate the endless pursuit of knowledge.

6) Organizing learning activities was a change because I got to know more. This leads to the use of knowledge in changing things, developing towards better change. Teachers should give opportunities Learners also get to know the results of their own development.

Wattanaporn Suddukkha (2007) gives the meaning that Organizing learning activities Refers to the method that will Leading students to the specified teaching and learning objectives. Selecting learning activities. Appropriate teaching consistent with learning objectives Therefore, it is the ability and skill of the teacher. in designing effective teaching and learning arrangements In conclusion, organizing learning activities It is the planning of teaching and learning activities. according to the specified indicators and learning objectives, promoting creativity Stimulate interest in Learning to be appropriate for the development of the learner Let students participate in organizing learning activities to create good attitudes in the course content. Pay attention to the behavior of students in expressing themselves to be appropriate in During the organization of teaching and learning activities

3.5.3 Use of media and technology

There are the meaning of media and technology.

Chaiyayot Rueangsuwan (2016) gives the meaning that Using media and technology means Using things that help in learning which teachers and students use to make teaching and learning more effective

Heinich and et al. (1985) gave the meaning that The use of media and technology means the use of any type of media, whether it be television, radio, photography, projection materials, and other materials. Publication, which is a vehicle for convey information from the source to the recipient when to be used in teaching or sending knowledge content to learners in the teaching and lea rning process

In conclusion, the use of media and technology refers to the use of materials, equipment, tools, and techniques that teachers use in teaching in order for students to have effective learning.

There are the processing of using media and technology.

Tang Li (2022) proposed in the "Research on the Cultivation of Informatization Teaching Innovation Literacy of Higher Vocational Teachers" that the cultivation content of informatization teaching innovation literacy of higher vocational teachers is reflected in the following aspects: higher vocational teaching literacy, including educational theoretical knowledge, teaching design ability, and

teaching practice experience; professional literacy, including professional literacy and job literacy; information literacy, including information skills, problem solving, and information thinking; integration literacy, including class-job integration, class-certificate integration, and class-skill integration; learning literacy, including higher vocational teachers' independent learning literacy and guiding students' independent learning literacy; personal characteristics, including communication skills, research spirit, and innovation ability. Combined with the consideration of "dual teacher literacy" in the existing literature, the study found that the informatization teaching innovation literacy of higher vocational teachers has a certain correspondence with it. Therefore, the researchers believe that the informatization teaching innovation literacy of higher vocational teachers is a further development of the "dual teacher" literacy. Vocational college teachers first need to become "dual-qualified" teachers, who must have both theoretical and practical teaching abilities. On the basis of becoming "dual-qualified" teachers, they must further realize the integration of courses and positions, courses and certificates, and courses and skills, thereby improving information-based teaching, promoting reforms in higher vocational education and teaching, and responding to the development of the times and society.

Wu Yanping & He Jing (2019) analyzed the current application status of modern educational technology capabilities of higher vocational teachers and believed that the improvement of modern educational technology application capabilities of higher vocational college teachers is closely related to teacher cognition, training content, training form and means. The article proposes strategies to improve the application capabilities of modern educational technology of higher vocational teachers, and combines the characteristics of higher vocational education and previous research to propose a higher vocational modern educational technology training model based on TPACK, which can provide a reference for improving the modern educational technology capabilities of higher vocational college teachers.

Yin Xia (2018) discusses the role of modern information technology in personalized management of higher vocational teachers, analyzes the needs of higher vocational colleges for personalized teachers, and proposes a way to personalized management of higher vocational teachers under the modern information technology platform. It is believed that the teaching philosophy, teaching level and teaching methods of vocational teachers are affecting the development of students. Therefore, schools should formulate a scientific and personalized management system for teachers based on the development of the times and in combination with the modern information technology platform, so as to improve the teaching strength of teachers and promote the all-round development of students.

The Office of Educational Supervision and Standards Development (2009) states that the process of using media and technology Teachers must prepare and use various learning media as well as local wisdom. Technology and learning resources in the community are appropriate for students' learning by setting steps for Use teaching media to provide maximum benefit to students as follows:

1) Preparation of teachers to be ready to use learning media. Teachers must study the content. The content in the learning media has been selected to check whether it is complete as desired or not. Including must have Experiment with the media in order to test the effectiveness of the media to see how well it can create understanding for students. Is it appropriate for the time and what improvements need to be made? You must also prepare. of equipment to be in ready-to-use condition.

2) Preparation of the environment Must be arranged in a condition suitable for the location. or classroom Whether it is the location of the various equipment, including the distance of the learners' seats and the lighting in the room should also be taken into account.

3) Preparation of students Teachers should explain to students the learning goals. of learning, recommending the use of media in cases where learners must use the media themselves. It is important to tell what activities learners must do in order to prepare properly.

4) Implementation of the use of learning media the teacher must observe how the students react while Organize teaching activities Do you have determination or enthusiasm? Because the behavior of the students will be an indicator of how appropriate the media is for the activity.

5) Evaluating the use of learning media involves taking data from media use and analyzing it to create satisfaction. It is clear what obstacles there are in using the media. It is appropriate for the activities and the learners. The evaluation will help in deciding on the use of learning media for future learning management or development Added to make it more appropriate.

In conclusion, the use of media and technology It is the teacher's choice of appropriate teaching media. and consistent with teaching objectives Have the ability to produce media, have expertise and know how to use teaching media, choose media that is appropriate to the learners' abilities. Prepare media and check the media that will be used so that students can use modern and permanent media.

3.5.4 Measurement and evaluation

There are the meaning of measurement and evaluation.

The Bureau of Academic and Educational Standards (2009) has defined measurement as an important tool that helps improve the quality of education because of the results of measurement and educational evaluation will be the basis for information for teachers' decision-making. For use in improving teaching methods, using teaching media, textbooks, curricula, guidance, organizing school administration systems, as well as improving student learning methods. to be more efficient which will result in operations to conduct education Follow the guidelines and achieve the goals that the curriculum requires.

McMillan (2001) stated that measurement and results means a systematic process for assigning numbers to performance results.

In conclusion, measurement and evaluation refers to a process that helps teachers obtain student learning results in numbers to be used in modifying teaching and learning. Encourage students to Develop and learn to your full

potential and is a reflection of the quality of teachers and students Process of measurement and evaluation.

There are the processing of measurement and evaluation.

Phichit Ritjaroon (2007) said that the process of measurement and evaluation is as follows.

1) Set common objectives between teachers and students. This step is joint planning between teachers. with students before starting teaching and learning activities, where teachers will lead Bring material documents and activities throughout the semester, which are called teaching guidelines. for students to consider and come to an agreement Since the beginning of the semester, What is the objective of this course? What teaching and learning activities must be done? Criteria for judging results. How do you study? To allow students to see images throughout the semester. and have the right to request an increase or decrease or adjustment of content and activities that teachers can offer

2) Set behavioral objectives. This step is the conversion of the general aim or purpose of Coursework is behaviorally objective. in each lesson or learning unit so that teachers are clear on the behaviors and characteristics that they want to develop in students. and to be able to measure Notice the purpose Behavioral consists of conditions that demonstrate behavior and minimum criteria. who can display that behavior

3) Create measurement and evaluation tools at this stage, teachers need to know how many types of tools there are. What characteristics, advantages, and limitations does each type have in order to be selected to suit the behavioral purpose being measured? There are many types of tools used to measure student learning outcomes, such as tests, attitude tests, observation forms, etc.

4) Test and collect data When the teacher has finished creating the tools, The person who is going to collect the information should The quality of the tools is checked. After that to collect data, which can be carried out in 3 phases: the pre-class phase during teaching and at the end of teaching

5) Organize information: In this step, teachers must know how to organize information. For what purpose is the information used? To describe About individual students or want to lecture in groups If you want to lecture as a group, will you lecture only on the group or will you summarize and refer to the larger group using this study group as a sample? and measured data What level is this? Tell the type, sequence, or range. That is, the teacher must have knowledge about measurement. and have knowledge of statistics Both descriptive statistics and reference statistics

6) Decide on academic results Assessing students' academic performance is a very common practice. At present it is Grading or grading academic performance which is This must be done when evaluating after the end and may only be done at the end of each section of teaching, such as giving a grade on each quiz. Grade work for giving grades at the end of the lesson, etc. Teachers need to have knowledge about the principles of grading and how to assign good grades.

Guskey (Guskey, 2000: pp. 41 - 42) stated that the process of measurement and evaluation can be sequenced in 4 steps:

1) Set standards for the quality of judgment.

2) Standards should be relevant and complete.

3) Gather relevant information.

4) Create standards to determine value or quality.

In conclusion, measurement and evaluation is a study and analysis of curriculum standards and indicators in order to determine criteria for evaluating the curriculum. Set tasks and pieces of work that show the potential of the learners. Use the observation process. By recording and interviewing students and collecting data from students' work, teachers have the ability to create good and fairly graded exams.

3.5.5 Classroom research

There is the meaning of classroom research.

Supattra Euawong (2011) has given the meaning that Classroom research means research to find innovations for to solve problems or to develop student learning, which emphasizes in the form of action research (Action Research) with

learning problems as a starting point. Teachers find methods or innovations to solve problems. The results of problem solving/development are observed and examined. Then record and reflect. Solve problems or develop them. Classroom research is usually small scale research conducted by teachers. It is a process where teachers reflect on their work and reinforce their power. giving authority to teachers.

Suwimon Wongwanich (2007) has given the meaning that Classroom research refers to research done by teachers in the classroom to solve problems that occur in the classroom and use the results for improvement. Teaching and learning to provide maximum benefits to students It is research that must be done. They act quickly, apply results immediately and reflect information about their performance to both themselves and their co-workers. The school had the opportunity to discuss and exchange opinions on the practices and use the results to Develop teaching and learning.

In conclusion, classroom research refers to activities that occur between teachers and students within the classroom, which have the goal of solving problems and developing more effective learning. The process of classroom research

The Ministry of Education (2014) has mentioned the process of classroom research as follows: The classroom research process in the form of action research has 5 important steps:

1) Survey and analyze problems

2) Determine methods for solving problems.

3) Develop methods or innovations

4) Apply methods or innovations

5) Summary

Suwimon Wongwanich (2007) mentioned that the classroom research process must be a continuous cycle of work, participatory work, and a process that is part of the work. from regular work to produce discoveries about solving problems in the classroom that can actually be practiced, with an important aim that an important aspect of classroom research is that it brings Use research results to develop effective learning as much as possible to achieve the goals of the

curriculum and use the classroom research process to develop a systematic and continuous learning process.

In conclusion, classroom research is a way to solve problems that arise while organizing learning activities. It is a system based on scientific principles in finding facts to get answers, using the results to improve and develop the teaching and learning process of teachers. The teacher is the one who does it. analyze problems and learners' needs Organize learning activities to solve problems or develop learners, collect information and Analyze data and summarize the results of solving problems or summarize the results of continuous development.

Related Research

4.1 Domestic research

Li Lin (2020) proposed the content of the development and assessment of higher vocational teachers from 4 dimensions of the construction of teachers and morals, education, teaching, scientific research and social services, and personal development. In 16 aspects, 37 specific quantitative indicators were set up. It is in line with the interests of teachers 'own interests and helps teachers' self -growing evaluation system.

Han Xianman and Ouyang Yan (2020) proposed the construction of 7 first - level indicators of teachers' morality, education, teaching, scientific research, international cooperation, social services, professional development, team collaboration, 18 second -level indicators, 80 tertiary indicators The development evaluation index system for the development of higher vocational colleges.

Wang Yan, Wang Bin, Xu Zhenzhen (2019) proposed the teacher development index system including the teacher supply index, the teacher teaching index, the teacher's scientific research index, the teacher's social service index, the teacher's reputation index, and the development of teachers of teachers in higher vocational colleges The index is evaluated and analyzed.

Ji Feifei (2016) proposed the "Dynamic College Teachers Development Model". According to the results of the evaluation, the school will provide teachers

with the development of customized teachers, including teaching development, scientific research, organizational development, and personal development. As a result, provide or choose to provide.

Sister Chu and Jin Rui (2016) proposed that from the overall perspective of the development of college teachers, considering the internal and external factors of teachers' development, the construction of the theoretical system of college teachers should be coordinated from three aspects: professional development, career development, and organizational development.

4.2 Foreign research

Pairin Hembut (2012) studied supervision strategies for developing professional teachers in Supervision Network No. 18 found that the development of supervision strategies to develop professional teachers in Supervision Network No. 18 has a development strategy consisting of 1) increasing the potential of supervisors educational institution administrators and teachers in supervision to facilitate the thorough development of professional teachers. Surrounded by various methods. 2) Develop the potential of professional teachers by creating new innovative media that responds to learning management according to indicators. 3) Promote and support educational supervision. Educational institution administrators and teachers to disseminate the results of new innovations through the technology system that facilitates their own development to become professional teachers. 4) Promote the use of research as a basis for managing the supervision process towards professionalism throughout the system. 5) Promote the supervision system Continuously monitor and evaluate the development of teachers into professionals and 6) the results of evaluating consistency, suitability, and feasibility. and the usefulness of the strategy is at a high level.

Bauch (Bauch, 2011: Online) studied the role of professional teachers and Feelings about the situation in rural schools where relationships with parents are at risk from the research results About the characteristics of professional teachers In conclusion, the characteristics of a professional teacher or a good teacher include: 1) having love and faith in the teaching profession, being diligent, honest, frugal, patient,

and having perfect physical and mental health. Have creative ideas Accept and listen to the opinions of others. Able to adapt to other people, work with other people, work well with other people. Be a good example for children. 2) Have knowledge and ability in teaching, have knowledge and understanding about the development and needs of learners. preparations are being made Teach and use teaching media Use many teaching methods to organize teaching and learning activities that promote3) Students' creativity has broad academic knowledge. Interested and following the movement Always concerned with education, bringing new methods to improve their teaching. 4) Be interested in students and help solve problems together with students. Encourage students to be reasonable people. From studying related documents, concepts, theories, and research, it became known about the strategy for developing professional teachers towards Thailand 4.0 in order to get the strategy for developing professional teachers and in line with the philosophy of Phaibarni Rajabhat University. It has been determined that it is a higher education institution for Local development and strategies Strengthen the network of cooperation with organizations/agencies at the level ASEAN and international

Chuchat Puangmalee (2007) studied the characteristics of professional teachers of schools in One project One dream school district under the Nong Khai Educational Service Area Office found that administrators and primary school teachers Opinions regarding the characteristics of professional teachers of schools in the One District, One Dream School project were overall at the level of agreement. When comparing opinions, it was found that both overall and every aspect were not different. As for administrators and teachers of primary schools, they had opinions about the characteristics of professional teachers of schools in one project. The district is one dream school. Overall and each aspect is at the level of agreement. When comparing opinions Found that in the overall picture no different Except for having skills in using English for communication, administrators and teachers have There are significant differences in opinions. Statistically significant at the .05 level, with administrators having higher opinions than teachers. Secondary school administrators and teachers have opinions about the characteristics of professional

teachers in schools. One project District one dream school Overall, it is at the level of agreement. When comparing opinions It was found that overall there was no difference. Except for having English language skills for communication, administrators and teachers had significantly different opinions on Statistically significant at the .05 level, with teachers having higher opinions than administrators.

Quick (Quicke, 2000) has conducted research on Organizational culture of professional teachers and learning in society together to evaluate the idea of professional teachers in the context at that time in order to recommend the creation of learning organizations in the institutions where professional teachers work. It was found that the creation of new ideas of professional teachers must emphasize shared democracy based on reasonable communication in an ever-changing context Structural change from bureaucracy (Bureaucratic) to be more lose in the layers of authority, informal communication. Friendliness between professional teachers, trust in each other's work, independence in work. and work that is inspected fairly and with responsibility Professional teachers work with leaders who are sincere, independent and able to Provide support to Able to develop oneself in every aspect Including the society of professional teachers, they do not like authority but like a friendly atmosphere and accept each other in their knowledge and ability to promote. A collaborative atmosphere is essential. Informal communication. Supporting work and personal life to maintain dignity.

4.3 New Era

Fan Liming (2022) studied that there are several aspects of the new requirements for the development of teachers in the new era: 1. Implement the fundamental task of cultivating morality and educating people; 2. Improve the ability of all staff to educate people; cultivate "four-good" teachers and "four guides". There are several aspects of the new practice of teacher development in the new era: 1. Establish a mechanism and strengthen planning and implementation; 2. Expand the scope and promote the development of all staff; 3. Expand the connotation and focus on the combination of Taoism and art.

Qiang Xiaohua & Jin Benneng (2020) researched that the new development concept has established a scientific action guide and correct value guidance for the professional development of teachers in higher vocational colleges in the new era. Under the guidance of the new development concept, to achieve the professional development of teachers in higher vocational colleges, we must adhere to innovative development, continuously promote innovation in theory, system, science and technology, and culture; adhere to coordinated development, grasp the key points of development, and achieve the overall development of higher vocational teachers; adhere to the green development concept, strengthen the construction of teachers' ethics, create a green academic ecology, and build an advanced school culture; adhere to open development to achieve win-win cooperation among higher vocational teachers; adhere to shared development to ensure equal development of teachers in higher vocational colleges.

Duan Shujin (2019) mentioned entering the new era, the construction of the faculty of colleges and universities faces a good external development environment. The Party and the State attach great importance to it, the development conditions are fully guaranteed, and the social status is widely recognized, which provides strong external support for the construction of the faculty. The new era is pregnant with new hopes. As dream builders of higher education talent training, college teachers should constantly strengthen their sense of responsibility for their careers, become disseminators of advanced ideas and culture, and firm supporters of the Party's governance. They should constantly cultivate their teacher ethics, become role models of students' moral cultivation, and leaders of social atmosphere. They should constantly improve their teacher skills, become mentors for students' growth and development, and guides for their all-round development. They should constantly promote work innovation, and become advanced members of the faculty group and leaders in professional fields.

Yang Xuezhi (2019) mentioned teachers are the first resource for educational development, and strengthening the construction of the teaching staff is a fundamental project to promote the development of education. Xi Jinping's

discussion on education issues has pointed out the direction for the construction of the teaching staff in the new era. To implement the spirit of the National Education Conference, strengthening the construction of the teaching staff in the new era should focus on the six aspects of "casting the soul of teachers, establishing teacher ethics, correcting teacher style, strengthening teacher ability, setting a good example for teachers, and solving teachers' worries", cultivate "four-good" teachers, and educate and guide the majority of teachers to truly be "four guides".

Liu Zhonghui (2018) studied the strategic position of teacher education in the new era has higher requirements in terms of the strategic position, development layout and training objectives of teacher education, puts forward new interpretations on talent training, puts forward new requirements on teacher team building, and puts forward new directions for teacher evaluation and teacher development.

Xinhua News Agency (2017) mentioned report of the 19th National Congress: After long-term efforts, socialism with Chinese characteristics has entered a new era, which is a new historical orientation for China's development. The entry of socialism with Chinese characteristics into a new era means that the Chinese nation, which has suffered a lot since modern times, has ushered in a great leap from standing up, getting rich, to becoming strong, and ushered in a bright prospect for realizing the great rejuvenation of the Chinese nation; it means that scientific socialism has shown great vitality in China in the 21st century and has raised the great banner of socialism with Chinese characteristics in the world; it means that the path, theory, system, and culture of socialism with Chinese characteristics have continued to develop, expanding the way for developing countries to modernize, and providing a new choice for those countries and nations in the world that want to accelerate development and maintain their independence, and contributing Chinese wisdom and solutions to solving human problems.

The new era is an era of inheriting the past, carrying forward the tradition, and continuing to win great victories for socialism with Chinese characteristics under new historical conditions. It is an era of decisive victory in building a moderately prosperous society in all respects and then building a modern socialist country in all

respects. It is an era in which people of all ethnic groups in the country unite and strive to create a better life, and gradually realize common prosperity for all people. It is an era in which all Chinese people work together to realize the Chinese dream of the great rejuvenation of the Chinese nation. It is an era in which our country is increasingly moving closer to the center of the world stage and making greater contributions to mankind.

4.4 High-quality development

Hao Jie (2024) found the high-quality development of vocational education is related to social and economic development, and the continuous transformation of the economy and society has highlighted the shortage of skilled talents, and the cultivation of high-skilled talents is imminent.

Qiu Siyuan (2024) mentioned the concept of "high-quality development" in China first appeared in policy discourse, which refers to development that can well meet the people's growing needs for a better life, development that embodies the new development concept, development in which innovation becomes the first driving force, coordination becomes an endogenous feature, green becomes a universal form, openness becomes the only way, and sharing becomes the fundamental purpose.

Yang Jinyu (2023) believes that improving scientific research capabilities is conducive to promoting the organic integration of teacher education theory and practice, promoting the professional development of teachers, and achieving high-quality development of vocational education. It is recommended that higher vocational colleges actively cultivate teachers' scientific research autonomy, improve the construction of scientific research evaluation system, and optimize the internal and external support mechanism for scientific research.

Xinhuanet (2023) mentioned the report of the 20th National Congress of the Communist Party of China proposed to "accelerate the construction of a new development pattern and focus on promoting high-quality development. High-quality development is the primary task of building a modern socialist country in an all-round way."

China Social Sciences Network (2022) proposed that the needs of social members in high-quality development have shifted from the pursuit of "having" and "sufficient" to the pursuit of "beauty" and "goodness". The products and services provided by society can no longer effectively meet the people's growing needs for a better life in terms of quality. Only by fundamentally carrying out supply-side structural reforms, taking the continuous improvement of the supply structure and the improvement of the quality and efficiency of economic development as the main line, and changing and improving the quality of product supply, can we achieve high-quality development and meet the people's growing needs for a better life.

Hou Yongzhi (2021) proposed that efficiency, fairness, safety and sustainable development are the four core essentials of high-quality development, and the four are interrelated and inseparable. When promoting reforms to improve efficiency, we must consider the impact of efficiency on fairness, safety and sustainable development. Only in this way can we carry out reforms to the end, truly achieve high-quality development, and ultimately build a modern and powerful country.

The Fifth Plenary Session of the 18th CPC Central Committee (2019) proposed a new development concept of innovation, coordination, greenness, openness and sharing, which profoundly revealed the only way to achieve higher quality, more efficient, fairer and more sustainable development. We must adhere to the new development concept to lead high-quality development, continuously improve people's livelihood, take more targeted, wider coverage, more direct and more effective measures, solve the education, employment, medical and health care, social security and other livelihood issues closely related to people's lives, and continuously promote the all-round development of people.

Ren Baoping (2019) mentioned high-quality development is a development concept proposed by China, emphasizing the realization of sustainable development in multiple aspects such as economic growth, environmental protection, and social harmony. Enhancing the adaptability of vocational education under the background of high-quality development is of great significance to improving the quality of vocational talent training.

China Economic Net-Economic Daily (2017) reported the 19th National Congress of the Communist Party of China clearly pointed out that China's economy has shifted from a stage of high-speed growth to a stage of high-quality development, and has made achieving high-quality development and building a modern economic system the strategic goal of national development.

4.5 Sustainable Development

In 1988, UNESCO integrated "environmental education and development education" into "Education for Sustainable Development".

Zhou Yao (2023) used qualitative research methods to study 10 young teachers of different teaching majors in a higher vocational college. It was found that young teachers in higher vocational colleges have complex and hierarchical development needs, which are basic development needs, emotional development needs, and self-realization needs.

Yue Wei & Zheng (2023) mentioned Austria the Austrian Federal Ministry of Education, Arts and Culture commissioned Professor Franz Rauch of the University of Klagenfurt and others to design the "Educational Literacy for Sustainable Development "(Kompetenzen für Bildung für Nachhaltige The model aims to provide a reference framework for the planning, implementation and reflection of sustainable development education activities, and to serve as a planning aid for teacher training courses.

Ding Zhengya (2023) believes that full-time teachers in higher vocational colleges need to have excellent "double-teacher qualities", strengthen teacher ethics, improve management systems and perfect training systems, and enhance teachers' initiative to improve their professional practice abilities. The development of full-time teachers in higher vocational colleges should not only conform to the essential attributes of vocational education, but also conform to the laws of cultivating technical and skilled talents.

Zhou Yao (2023) believes that the development of full-time teachers in higher vocational colleges should be implemented in four aspects: improving the teacher education system, creating an internal and external environment of empowerment, strengthening the construction of stratified classification standards, and highlighting the active participation of multiple subjects.

Zhang Zhimin (2023), Brundiers, K, Barth, M, Cebri án, G. et al (2021) mentioned teachers should help students build future-oriented abilities through education. In the future development process, they need not only the guarantee of knowledge, but also the support of skills, and they also need to improve their adaptability through cooperation and interaction with others.

Luo Haiying (2022) mentioned as the top-level design concept of organizational development, the quality culture of higher education has an important impact on the development of university teachers due to its value orientation and cohesion, constraint, and motivation functions. Through the quality culture of higher education, we can lead the development of local university teachers, build a diversified linkage mechanism for the development of university teachers, design comprehensive and systematic teacher development projects and content, stimulate the initiative and internal development motivation of teachers, and truly achieve a breakthrough in the difficulties of local university teacher development.

Guo Fang (2022) mentioned teachers need to maintain solid professional theories and basic methods, and the only way to achieve this is to continue to learn. Actively update their own resource base, actively pursue the update of the knowledge system, promote their own abilities to adapt to the development of the times and educational theories, and continuously promote the long-term development of education and teaching. And they believes that from the perspective of career development planning, teachers in higher vocational colleges are an aggregation of the "four-student career system" and follow the "dual-track integration" model of explicit career development and implicit career development.

Hou Rongzeng (2022) mentioned from the three perspectives of national policy support, actual school construction and individual teacher development, this paper examines and analyzes the current situation and problems of full-time teacher training in higher vocational colleges. It is believed that the individual growth of full-time teachers should be combined with the construction of teaching teams, and the training of full-time teachers should be combined with the training of part-time teachers.

Molina Rold án S, Marauri J, Aubert A, Flecha R. (2021) faced with the new needs of sustainable development and global citizenship education, teachers need to build the

ability to create an inclusive and interactive learning environment so that education can meet the personalized needs of students.

Metsala JL, Harkins MJ. (2020) mentioned teachers can achieve sustainable education through self-efficacy, belief, establishment of personal values and active integration of sustainable education and global citizenship education to help individuals become complete individuals.

Wang Xin, Zhang Weiguo (2015) , for teachers themselves, sustainable development helps to improve their teaching ability, improve their professional quality, enhance their teaching confidence, increase their satisfaction and happiness in the education career, reduce the negative impact and growth pressure of the career bottleneck period, and provide a more scientific and broad platform for teachers to achieve long-term development in the professional teaching field and realize their personal value.

Wang Wei (2008) mentioned drawing on the concept of sustainable development, from the connotation point of view, the sustainable development of teachers can be understood as the development of teachers cannot be "fishing in a dry pond", but to create conditions and opportunities for future development and lifelong development to make their development more vigorous; from the essence point of view, the sustainable development of teachers is essentially a process of seeking the "personalization", "individualization" and "culturalization" of teachers .

Duan Zuozhang, Zhu Qian (2007) believes that the integration of teacher training models is the core of "teacher education integration" and must be based on the law of teacher growth. Teacher growth generally goes through four stages: novice teacher - competent teacher - backbone teacher - expert teacher.

Wei Dongying, Wang Min (2007) proposed that the field of sustainable development education is extremely complex, "Educationally meaningful and effective sustainable development education requires the concerted efforts of multiple departments, disciplines and groups.

Chapter 3
Research Methodology

Conducting research on strategy development the profession of high-quality vocational teachers in the new era is aimed at: 1. To study the conditions, problems and factors related to the development of strategies for High-quality vocational teacher professionals in the new era. 2. To create a strategy Professional development of high- quality vocational teachers in the new era. 3. To evaluate the appropriateness of the strategy for Professional development of high -quality vocational teachers in the new era

In order to solve the problems mentioned in Chapter 1 and achieve the above research objectives, the researchers adopted the following research procedures, as follows:

1. The population and the sample Group

2. Research Instruments

3. Data Collection

4. Data Analysis

Summary of research methods in 3 stages as shown in Figure 3.1

Stage 1: To Study the current situation of teachers' sustainable development ability in higher vocational colleges in Guangdong Province

The Population/Sample group

The Population

The population of this study is about 50,000 teachers on staff in 93 higher vocational colleges in Guangdong Province.

The Sample Group

1) Questionnaire

The sample group was obtained using categorical random sampling using the Krejcie and Morhan (1970) sampling table. This study takes 600 teacher representatives from 93 higher vocational colleges in Guangdong Province as the research objects.

Table 3.1 Sample size table of this survey

No.	Area	School Name	Population	Sample group
1	Higher vocational colleges in the east, west and north of Guangdong (16)	Qingyuan Vocational and Technical College, Yangjiang Vocational and Technical College, Heyuan Vocational and Technical College, Jieyang Vocational and Technical College	12,000	92
2	Higher vocational colleges in nine cities in the Guangdong-Hong Kong-Macao Greater Bay Area (77)	Shenzhen Polytechnic, Huizhou City Polytechnic, Guangdong Light Industry Polytechnic, Shenzhen Polytechnic of Information Technology	38,000	289
	Total	8	50,000	381

2) Interview

The interviewees of this study are 10 teachers from higher vocational colleges in Guangdong Province. The interviewees' conditions are as follows: 1) teachers from higher vocational colleges in Guangdong Province; 2) 2 teachers from higher vocational colleges in Guangdong Province with 1-5 years of teaching experience; 3) 2 teachers from higher vocational colleges in Guangdong Province with 6-15 years of teaching experience; 4) 2 teachers from higher vocational colleges in Guangdong Province with 16-25 years of teaching experience; 5) 4 teachers from higher vocational colleges in Guangdong Province with more than 25 years of teaching experience.

Table 3.2 List of Interviewer

No.	School Name	1-5 years of teaching experience	6-15 years of teaching experience	16-25 years of teaching experience	25+ Years
1	Guangdong Industry Technical College	1			1
2	Shenzhen Polytechnic		1		1
3	Shenzhen Vocational College of Information Technology			1	
4	Heyuan Vocational and Technical College	1		1	1
5	Shanwei Vocational and Technical College		1		1
	Total	2	2	2	4

Research Instruments

The instruments used in this study include literature research, questionnaires, and interview schedules.

Literature Research

Literature study is the foundation of scientific research. Carefully analysing the literature can help researchers familiarise themselves with the current state of research in the relevant field and identify problems. At the same time, it helps researchers understand the feasibility and necessity of the research problem. This study details the current research status of domestic and foreign scholars in areas such as sustainable learning ability and refines the relevant research perspectives. Drawing on the successful experiences of domestic and international research, the study is conducted according to the actual situation of the research object.

Questionnaire Survey

Designing the questionnaire

Part I: The questionnaire, validity and feasibility were prepared by five education experts. Respondents' information, including gender, age, educational background and profession.

Part 2: This study focuses on the questionnaire survey on the current status of sustainable development ability in higher education institutions, including Life development, Professional development, Organizational development, and social development

The data interpretation criteria based on the Likert five-point scale are as follows:

5 indicates the highest level of sustainable development ability of teachers in higher vocational colleges and universities

4 indicates that the level of sustainable development ability of teachers in higher vocational colleges and universities is at a high level.

3 indicates that the level of sustainable development ability of teachers in higher vocational colleges and universities is at a medium level.

2 indicates that the level of sustainable development ability of teachers in higher vocational institutions is low.

1 indicates that the level of sustainable development of ability teachers in higher vocational institutions is at the lowest level

The mean data based on Rensis Likert (1932) is interpreted as follows:

4.50 - 5.00 expresses the highest level

3.50 - 4.49 expresses high level

2.50 - 3.49 expresses the medium level

1.50 - 2.49 expresses low level

1.00 - 1.49 expresses the lowest level

The process of constructing a questionnaire

The process of constructing a questionnaire is as follows:

1. Reviewing and analysing the literature, concepts, theories and studies related to sustainable development ability of teachers in higher education institutions.

2. Construct a questionnaire on the current status of teachers' sustainable development ability in higher education institutions. The outline of the questionnaire was then sent to the thesis advisor to review and revise the content based on the suggestions.

3. The index of goal congruence (IOC) (Brian Foote, 1988) of the questionnaire were checked by three experts.

4. The questionnaire was revised based on the experts' suggestions.

5. The questionnaire was distributed to 20 teachers of higher education institutions for trial. The reliability of this questionnaire was obtained by Kornbach's alpha coefficient.

6. The questionnaire was administered to 384 teachers from four higher vocational colleges and universities in Guangdong Province and waiting for data collection.

Interview Form

Based on the results of the questionnaire survey and analysis of the current situation of teachers' Sustainability develop in higher vocational colleges and universities, a corresponding structured interview form was developed from four aspects: Life development, Professional development, Organizational development, and social development. Structured interviews were conducted with 10 full-time teachers and educational administrators from four representative higher vocational institutions in Guangdong Province. The purpose was to understand the specific implementation of Sustainable development of teachers in higher vocational institutions.

The structured interview provides into two parts:

Part 1: the personal information of interviewees, classified by interviewee, interviewer, education background, work experience, interview time, and interview date.

Part 2: the questions about suggestion for developing the current situation of teachers' Sustainable development ability in higher vocational colleges and universities base on four aspects: 1) Life development, 2) Professional development, 3) Organizational development, and 4) social development

Data Collection

The method of data collection for objective 1: To study the issue of the current situation of teacher' sustainable development ability in higher education institutions, the steps are as follows:

Step 1: Study concepts and theories from related documents, textbooks, research

1) Study methods include studying theoretical concepts from documents, textbooks, and research related to Strategy development teachers' sustainable development ability in higher education institutions

2) Data sources are documents, textbooks, and related research.

3) The variable studied is the development of educational management strategies to improve the teacher' sustainable development ability in higher vocational colleges in Guangdong Province.

4) The research tools are Document Study Form (Document Analysis).

5) The researcher collects data from documents, textbooks, and related research.

6) The researcher used the method of content analysis (Content Analysis) to summarize the essence of developing educational management strategies to improve the teachers' sustainable development ability in higher vocational colleges in Guangdong Province.

Step 2: Questionnaire 381 teachers

1) The researcher requested a letter from the Graduate School of Bansomdejchaopraya Rajabhat University for requiring to collect the data from 384 students from four higher vocational colleges in Guangdong Province.

2) The researcher distributed questionnaires to 381 teachers in 4 higher vocational colleges in Guangdong Province to ensure that the recovery rate of the questionnaires is 100%.

Step 3: Interviews with teachers and administrators

1) The researcher requested a letter from the Graduate School of Bansomdejchaopraya Rajabhat University to send a letter to collect interview data from 10 teachers and educational administrators from 4 higher vocational institutions in Guangdong Province.

2) The researcher sent invitation letters to the interviewees who participated in proposing strategies.

3) The researcher conducted interviews with 10 participants, each lasting no less than 30 minutes.

4) The researcher conducted face-to-face interviews with the 10 teachers and educational administrators to ensure that 100 percent of the eight interview forms were returned.

Data Analysis

The researcher analysed the data through the software package program as follows:

1) The personal information of the questionnaire respondents and the respondents were analysed in terms of frequency and percentage, categorised by gender, age, educational background, profession, and so on.

2) Using descriptive statistics, the questionnaire statistics were processed and the current situation of the human resource management in Guangdong private universities was analyzed through the mean and standard deviation.

3) Using content analysis methods to analyze and sort out the interview data, extract and summarize effective information, and propose strategies and relevant measures to improve students' sustainable learning ability, in conjunction with the foundation of previous studies.

Stage 2: Develop strategy Professional development of high-quality vocational teachers in the new era

The Population/Sample group

Purposeful sampling was used in developing strategies for a high-quality professional of vocational college teachers in New era. 10 full-time teachers, instructional administrators from higher education institutions were selected. The full-time teachers and teaching administrators had to fulfill the following requirements: 1) they had worked in the school for more than five years; 2) they were familiar with the specifics of the school's development plan, teaching management, and student development, and 10 experts from 5 higher education institutions, who have great influence on strategy formulation, sustainable development, students' learning ability, talent cultivation and education management of higher vocational institutions. The qualifications of the experts: 1) more than 15 years of work, 2) senior titles, and 3) senior leaders.

Table 3.3 List of Focus Group Interviewee

No.	Education Institutions	Focus group Interviewee	Region
1	Shenzhen Vocational and Technical College	2	Pearl River Delta Region
2	Shanwei Vocational and Technical College	2	Eastern Guangdong Province
3	Maoming Vocational and Technical College	2	Western Guangdong Province
4	Heyuan Vocational and Technical College	2	Northern Guangdong Province
5	Shanwei institute Technology	2	Northern Guangdong Province
	Total	10	5

Data Collection

The method of data collection for objective 2: To provide strategies to improve the sustainable development ability of teachers in higher vocational colleges and universities, the steps are as follows:

Step 1: The result from first stage is used to develop the educational management strategies prototype to improve the teachers' sustainable development ability in higher vocational colleges in Guangdong Province

Step 2: The researcher asked the Graduate School of Bansomdejchaopraya Rajabhat University to send a letter to collect focus group discussion data from 10 teachers from 5 higher vocational institutions in Guangdong Province.

Step 3: Examination of qualitative strategies (Qualitative Research) using interview methods. with a specific focus (Focus Group Interview) to confirm educational management strategies to improve the teachers' sustainable

development ability in higher vocational colleges in Guangdong Province. It is a strategy evaluation step. Selected from the population, namely 10 experts to participate in the group discussion.

Data Analysis

Content analysis of educational management strategies to improve teachers' sustainable development ability in higher vocational colleges and universities.

Stage 3 evaluate the appropriateness development of strategies a high-quality professional of vocational college teachers in new era.

The Population/Sample group

Sample of Assessment Strategies

The five experts for assessing the integration strategy of production and education are 2 experts from Heyuan Polytechnic college and 3 Thai experts from Thai, who have great influence on strategy formulation, sustainable development, teachers' development ability, talent cultivation and education management of higher vocational institutions. The qualifications of the experts: 1) more than 15 years of work, 2) senior titles, and 3) senior leaders. The evaluation form was based on a five-point Likert scale with four levels of evaluation: "very high", "high", "medium", "low" and "very low". "High", "Medium", "Low" and "Very Low".

Table 3.4 List of experts in the evaluation team

No.	Education Institutions	Assessment Panel experts
1	Heyuan Polytechnic	2
2	Thailand	3
	Total	**5**

Research instrument

Evaluation form

This instrument collects data for Objective 3 and evaluates the suitability and feasibility of strategies to teachers' sustainable development ability in higher vocational institutions. Five experts from 2 Heyuan Polytechnic College experts and 3 Thai experts were invited to evaluate the suitability and feasibility of the strategy. The evaluation form provide into two parts:

Part 1: the personal information of experts classified by work position, work experience, educational background, and academic title.

Part 2: The evaluation form about the educational management strategies to improve students' sustainable learning ability in higher vocational institutions The criteria for data interpretation based on a five-point Likert's scale (1932), The data interpretation is as follows:

5 refers to the suitability and feasibility of the strategies at the highest level

4 refers to the suitability and feasibility of the strategies at a high level

3 refers to the suitability and feasibility of the strategies at a medium level

2 refers to the suitability and feasibility of the strategies at a low level

1 refers to the suitability and feasibility of the strategies at the lowest level

The data interpretation for average value is based on Rensis Likert (1932). The data interpretation is as follows:

4.50 - 5.00 expresses the highest level

3.50 - 4.49 expresses high level

2.50 - 3.49 expresses medium level

1.50 - 2.49 expresses low level

1.00 - 1.49 expresses the lowest level

Data Collection

The method of data collection for objective 3: to evaluate the suitability and feasibility of strategies to the teachers' sustainable development ability in higher vocational colleges in Guangdong Province

The result from second stage is used to evaluate the strategies to improve the teachers' sustainable development ability in higher vocational colleges in Guangdong Province. the steps are as follows:

Step 1: The researcher requested a letter from the Graduate School of Bansomdejchaopraya Rajabhat University to collect evaluation from five experts from Heyuan Polytechnic college and Thai experts to formulate the strategy for improving teachers' sustainable development competence.

Step 2: The researcher distributed the evaluation forms to the five experts, chose an appropriate time and place to contact the experts, instructed them to score the assessment forms, and ensured that the evaluation forms were collected 100%.

Step 3: The researcher Invited experts to fill out the evaluation form.

Step 4: The researcher summarized and analyzed the results of the evaluation form.

The method of data collection for objective 2: To provide strategies to improve the sustainable development ability of teachers in higher vocational colleges and universities, the steps are as follows:

Step 1: The result from first stage is used to develop the educational management strategies prototype to improve the teachers' sustainable development ability in higher vocational colleges in Guangdong Province.

Step 2: The researcher asked the Graduate School of Bansomdejchaopraya Rajabhat University to send a letter to collect focus group discussion data from 10 teachers from 5 higher vocational institutions in Guangdong Province.

Step 3: Examination of qualitative strategies (Qualitative Research) using interview methods. with a specific focus (Focus Group Interview) to confirm educational management strategies to improve the teachers' sustainable development ability in higher vocational colleges in Guangdong Province. It is a strategy evaluation step. Selected from the population, namely 10 experts to participate in the group discussion.

Data Analysis

Evaluate the suitability and feasibility of the strategies for improving teachers' sustainable development ability in higher vocational colleges and universities using descriptive statistics, the strategies and measures proposed in this study were assessed by means and standard deviations.

Stage 1. To study the conditions, problems and factors related to the development of strategies for high-quality vocational teacher professionals in the new era.

Sample Group	**Data Collection**
381 teachers from 8 higher vocational colleges and universities.	1. Study concepts and theories from related documents, textbooks etc.
Key Informants	2. Questionnaire 381 teachers
10 teachers and instructional	3. Interview 10 teachers
Research Instruments	**Data Analysis**
1. Questionnaire	1. Content Analysis
2. Interview Form	2. Frequency, percentage, mean, S.D.

Findings: 1) Quantitative data 2) Qualitative data 3) Combined quantitative and qualitative data.

Result: The current situation of teachers' sustainable development ability.

Stage 2. To create a strategy professional development of high-quality vocational teachers in the new era.

Target Group	**Research Instruments**	**Data Collection**	**Data Analysis**
10 experts	1. Strategies Prototype	Interview	Content
	2. Question Points		Analysis

Findings: Strategy professional development of high-quality vocational teachers in the new era.

Stage 3. To evaluation the suitability of the strategy for professional development of high-quality vocational teachers in the new rea.

Target Group	**Research Instruments**	**Data Collection**	**Data Analysis**
5 experts	Evaluation Form	Evaluation	Mean, S.D.

Findings: Strategy professional development of high-quality vocational teachers in the new era.

Figure 3.1 Research Instrument

Chapter 4
Result of Analysis

The research objectives of the Strategies a high-quality professional of vocational college teachers in the New Era: 1) To study the conditions, problems and factors related to the development of strategies of High-quality vocational teacher professionals in the new era. 2) To create a strategy Professional development of high -quality vocational teachers in the new era. 3) To evaluate the appropriateness of the strategy for developing Professional development of high-quality vocational teachers in the new era Area of research. The sample was 381 teachers with a stratified sampling technique for studying the current situation and supporting factors that enhance a high-quality professional of vocational college teachers in the New Era. The Relevant research data was divided into three sections as follows:

1. Results of studying the conditions, problems and factors related to the strategies of High-quality vocational teacher professionals in the new era.

2. Results of development the strategies for Professional development of high -quality vocational teachers in the new era.

3. Results of evaluating the appropriateness of the strategy of Professional development of high -quality vocational teachers in the new era.

Results of studying the conditions, problems and factors related to the strategies of High-quality vocational teacher professionals in the new era.

1.1 Analysis of personal information of teachers and administrators of colleges and universities under Guangdong province, including administrative area, gender, teacher identity, School type and Teaching experience. The details were below:

Table 4.1 Analysis of the Information on the identity of teachers

No.	Variables	Items	Number	Percentage (%)
1	Administrative Area	Nine Cities in the Greater Bay Area	289	75.9
		Guangdong, East, West and North regions	92	24.1
		Total	**381**	**100**
2	Gender	Male	210	55.1
		Female	171	44.9
		Total	**381**	**100**
3	Teacher Identity	Ordinary Teacher	236	61.9
		Ideological and political Teachers	48	42.6
		Teaching management staff	97	25.5
		Total	**381**	**100**
4	School Type	National high-level vocational education	73	19.2
		Provincial Demonstration Vocational College	128	33.6
		Ordinary higher vocational	180	47.2
		Total	**381**	**100**
5	Teaching Experience	0-3 years	114	29.9
		4 to 15 years	151	39.6
		16-25 years	71	18.6
		25+ years	45	11.8
		Total	**381**	**100**

The table provides a detailed breakdown of higher vocational teachers based on 5 key variables: administrative area, gender, teacher identity, school type, and teaching experience. The data reveals a significant regional imbalance, with 75.9% of teachers concentrated in the Nine Cities in the Greater Bay Area, while only 24.1%

are from the less developed Guangdong East, West, and North regions. This indicates a disparity in resource allocation and teacher distribution across regions. In terms of gender, the distribution is relatively balanced, with 55.1% male and 44.9% female teachers. This suggests an equitable gender representation within the workforce, though males slightly outnumber females. Regarding teacher identity, the majority (61.9%) are ordinary teachers, forming the core of the teaching workforce. In contrast, 25.5% are teaching management staff, and 42.6% are ideological and political teachers, highlighting smaller subgroups that play specialized roles within institutions. The distribution across school types shows that most teachers work in ordinary higher vocational schools (47.2%), followed by provincial demonstration vocational colleges (33.6%) and national high-level vocational schools (19.2%). This distribution underscores the need for greater investment and support for teachers in ordinary vocational schools to enhance their teaching environment. Regarding teaching experience, the majority of teachers (39.6%) fall within the 4–15 years category, indicating that a significant portion of the workforce is in the mid-stage of their careers. However, fewer teachers have over 16 years of experience, with only 18.6% in the 16–25 years category and 11.8% in the 25+ years category. This suggests potential challenges in retaining long-serving educators or a lack of highly experienced mentors within institutions.

Overall, the data provides critical areas for improvement, including addressing regional disparities, supporting specialized teacher roles, investing in ordinary vocational schools, and fostering career growth opportunities to retain experienced educators. These insights provide valuable direction for policy and resource allocation to enhance the development of higher vocational teachers.

1.2 Analysis of the questionnaire information on the conditions, problems and factors related to the High-quality vocational teacher professionals in the new era.

1.2.1 Analysis of total: Life development, Professional development, Social development, Organize development

Based on the questionnaire survey, this research analyzed the data of the conditions, problems and factors related to the development of strategies of High-

quality vocational teacher professionals in the new era, focusing on 4 key dimensions: life development, professional development, social development, and organize development. The analysis included calculating the mean and standard deviation for both the current and expected situations. Additionally, the Priority Needs Index (PNI) was used to identify and rank the gaps between the current and expected states for each dimension. The results showed that social development had the highest PNI, indicating the most significant gap, followed by life development, professional development, and organize development. Exploratory factor analysis was conducted to test the reliability and validity of each variable, confirming the relevance of the data variables within the questionnaire and supporting the prioritization of improvement strategies for each dimension.

Table 4.2 Analysis of the conditions, problems and factors related to the High-
quality vocational teacher professionals

(n=381)

Sustainable development	Current Situation (D)			Expected Situation (I)			$PNI_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
1. Life development	3.86	0.44	High	4.54	0.42	Highest	0.176	2
2. Professional development	3.76	0.42	High	4.22	0.33	High	0.122	3
3. Social development	3.20	0.28	Normal	4.06	0.27	High	0.269	1
4. Organize development	3.77	0.29	High	4.17	0.36	High	0.106	4
Total	3.65	0.33	High	4.25	0.37	High	0.160	

Table 4.2 presents a comparison of the current and expected situations across 4 key dimensions of sustainable development for high-quality vocational teachers: life development, professional development, social development, and

organizational development. The analysis also includes the Priority Needs Index (PNI) to quantify the gaps and prioritize areas for improvement.

Among the dimensions, social development emerges as the most critical area, with the highest PNI value of 0.269. The current situation is rated at 3.20 (S.D.=0.28), while the expected situation is 4.06 (S.D.=0.27), indicating a significant gap. This suggests that teachers feel under-supported in terms of social engagement and opportunities, making this dimension the top priority for improvement. Life development ranks second, with a PNI of 0.176. While the current situation is perceived as relatively strong at 3.86 (S.D.=0.44), compared to the expected level of 4.54 (S.D.=0.42), there is still considerable room for enhancing teachers' well-being and work-life balance.

Professional development has a PNI of 0.122, ranking third in priority. The current situation score of 3.76 (S.D.=0.42) is moderately aligned with the expected level of 4.22 (S.D.=0.33), indicating that professional skills development requires ongoing attention but is relatively better supported. Organizational development has the smallest PNI value at 0.106, suggesting that this dimension is closest to meeting expectations. The current situation is rated at 3.77 (S.D.=0.29) compared to the expected level of 4.17 (S.D.=0.36), showing that teachers perceive organizational support as relatively adequate, though incremental improvements are still necessary.

Overall, the total PNI value across all dimensions is 0.160, reflecting a moderate gap between the current and expected situations. While organizational and professional development show smaller discrepancies, the significant gaps in social and life development highlight critical areas for intervention. Prioritizing improvements in these dimensions will be essential for fostering high-quality development among vocational teachers.

1.2.2 Analysis of current situation and expected situation of life development

This research mainly used Mean and Standard Deviations and PNImodified to analyze the situation of each variable.

Table 4.3 Analysis of current situation and expected situation for life development

(n=381)

Life Development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
1. You think "Teaching and educating people" is college teachers pursuit and career.	4.28	0.97	High	4.69	0.82	Highest	0.095	11
2. You always have an equal dialogue with students.	4.48	0.67	High	4.72	1.02	Highest	0.053	12
3. You always arrive at the teaching place early to prepare for class.	4.17	0.86	High	4.63	0.76	Highest	0.110	10
4. You think the most important value that students form in school is egalitarianism.	3.92	1.05	High	4.69	0.53	Highest	0.196	7
5. You never been complained by students and parents.	4.23	0.89	High	4.82	0.76	Highest	0.139	8

Table 4.3 (Continued)

Life Development	Current Situation (D)			Expected Situation (I)			$PNI_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
6. You felt the pressure last year.	2.95	1.10	Medium	3.98	0.82	High	0.349	2
7. You haven't chronic diseases such as hypertrophic, hypertension, and cervical spine hyperplasia and so on Diseases.	3.41	1.38	Medium	4.26	0.88	High	0.249	3
8. You haven't Stay up late, smoke, alcohol, sedentary and other habits.	3.50	1.34	High	4.32	0.91	High	0.234	4
9. You learned professional knowledge, new technologies, new methods, etc.	4.05	0.81	High	4.57	0.93	Highest	0.128	9
10. You Formulated a long -term development plan for career.	3.98	0.81	High	4.78	0.47	Highest	0.201	6
11. You has received won the title of "Excellent Teacher" in the past three years.	3.58	1.32	High	4.39	0.25	High	0.81	1

Table 4.3 (Continued)

Life Development	Current Situation (D)			Expected Situation (I)			$PNI_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
12. You very happy that I am a teacher in a higher vocational college.	3.77	1.03	High	4.62	0.76	Highest	0.225	5
Total	3.86	0.44	High	4.54	0.42	Highest	0.176	

Table 4.3 analyzes the current and expected situations of vocational college teachers' life development, including their mean scores, standard deviations (S.D.), Priority Needs Index (PNI), and rankings for individual items.

The overall current situation has a mean score of 3.86 (S.D.=0.44), while the expected situation averages 4.54 (S.D.=0.42), resulting in a total PNI value of 0.176. This indicates a moderate gap between the current state of life development and teachers' expectations.

Among the items, "You felt the pressure last year" has the largest gap, with a PNI value of 0.349, reflecting significant stress levels and the need for interventions to improve teachers' mental well-being and work-life balance. Similarly, items related to physical health, such as "You haven't chronic diseases such as hypertrophic, hypertension, and cervical spine hyperplasia" (PNI=0.249) and "You haven't stayed up late, smoke, alcohol, sedentary and other habits" (PNI=0.234), rank among the top concerns, highlighting a need to address teachers' health and wellness.

On the other hand, the smallest gaps are seen in "You always have an equal dialogue with students" (PNI=0.053) and "You think 'Teaching and educating people' is college teachers' pursuit and career" (PNI=0.095). These items suggest that teachers have a strong alignment with their professional values and maintain positive interactions with students.

Other notable gaps include "You formulated a long-term development plan for career" (PNI=0.201) and "You very happy that I am a teacher in a higher vocational college" (PNI=0.225), which indicate areas for improvement in teachers' career satisfaction and professional growth.

In summary, the findings reveal significant gaps in stress management and physical health, indicating the need for targeted support systems to enhance teachers' well-being. While professional values and student interactions are strengths, improvements in mental and physical wellness, as well as career satisfaction, are essential to bridge the gap between the current and expected life development of vocational college teachers.

1.2.3 Analysis of current situation and expected situation of professional development.

This research mainly used Mean, Standard Deviations and PNImodified to analyzed the situation of each variable.

Table 4.4 Analysis of current situation and expected situation of professional development

(n=381)

Professional development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
1. You familiar with the "education training" combined with large unit teaching design.	3.85	0.94	High	4.23	0.87	High	0.098	8
2. You can Professional use of project teaching, task -driven teaching, case teaching and other teaching methods.	4.07	0.80	High	4.72	0.76	Highest	0.160	3
3. You can Proficient in writing teaching and research papers, typical cases, lesson plans.	3.95	0.85	High	4.34	0.72	High	0.099	7
4. You can proficient in developing mixed online and offline teaching.	4.05	0.79	High	4.56	1.21	Highest	0.126	5

Table 4.4 (Continued)

Professional development	Current Situation (D)			Expected Situation (I)			$PNI_{modified}$ (I – D)/D	Rank
	$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level		
5. You also hold a professional skill level certificate in addition to your teaching certificate.	4.04	0.95	High	4.39	0.65	High	0.087	10
6. You have participated in the teaching competition, science and technology competition, professional skills competition and so on	2.80	1.48	Medium	3.72	0.43	High	0.329	1
17. You have the training qualification certificate of the professional vocational skill level certificate.	3.78	1.17	High	4.21	0.87	High	0.114	6
8. Your teaching quality was rated as excellent by the school last year.	4.31	0.77	High	4.56	0.76	Highest	0.058	12

Table 4.4 (Continued)

Professional development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$ (I – D)/D	Rank
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level		
9. You have mastered the advanced theories, research methods and research tools to carry out research projects.	3.95	0.93	High	4.21	0.69	High	0.066	11
10. You have the ability to use SPSS software to process, count and analyze data.	3.65	1.19	High	4.15	0.83	High	0.137	4
11. You have published papers, monographs, patents, survey reports, etc. last year.	3.27	1.54	Medium	3.87	0.82	High	0.162	2
12. The transformation of your teaching and scientific research results has produced good economic or social benefits.	3.40	1.30	Medium	3.71	0.74	High	0.091	9
Total	3.76	0.42	High	4.22	0.33	High	0.122	

The analysis of Table 4.4 provides the current and expected situations of Professional Development for vocational college teachers. The overall mean score for the current situation is 3.76 (S.D.=0.42), while the expected situation reaches a higher mean score of 4.22 (S.D.=0.33), resulting in a Priority Needs Index (PNI) of 0.122. This moderate gap indicates that while some aspects of professional development are meeting expectations, there are critical areas that require attention.

Among the items analyzed, the largest gap is observed in "You have participated in the teaching competition, science and technology competition, professional skills competition, and so on", with a PNI value of 0.329. This reflects a significant shortfall in opportunities or motivation for teachers to participate in competitions, which are essential for professional exposure and growth. Similarly, the item "You have published papers, monographs, patents, survey reports, etc., last year" shows a notable gap with a PNI value of 0.162, highlighting challenges in research productivity and dissemination. Another key area of concern is "You can professional use of project teaching, task-driven teaching, case teaching, and other teaching methods", which has a PNI value of 0.160, indicating the need for improvement in adopting advanced and innovative teaching methods.

On the other hand, the smallest gaps are seen in items like "Your teaching quality was rated as excellent by the school last year", with a PNI value of 0.058, suggesting that teaching performance and recognition align relatively well with teachers' expectations. Other areas with smaller gaps include "You have mastered the advanced theories, research methods, and research tools to carry out research projects" (PNI=0.066) and "You can proficiently develop mixed online and offline teaching" (PNI=0.126). These results indicate that teachers have achieved moderate progress in research competencies and blended teaching approaches, but there is still room for further improvement.

Overall, the findings emphasize the need for targeted interventions to address the key gaps in professional development. Greater support is required to enhance teachers' participation in competitions, improve research output, and facilitate the adoption of innovative teaching methodologies. While areas such as teaching

performance and research competencies show moderate alignment with expectations, addressing the identified deficiencies will be crucial for fostering sustainable professional growth and achieving high-quality development among vocational college teachers.

1.2.4 Analysis of current situation and expected situation of social development

This research mainly used Mean, Standard Deviations and PNImodified to analyzed the situation of each variable.

Table 4.5 Analysis of current situation and expected situation for social development

(n=381)

Social development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
1. You have host or participate in social groups, public welfare organizations, academic organizations.	3.17	1.51	Medium	3.92	0.93	High	0.237	5
2. You have attended lectures, reviews, exchanges, and other activities outside.	3.06	1.36	Medium	3.87	0.87	High	0.265	4
3. You have undertaken any vocational courses or skills training business on or off campus last year.	2.94	1.54	Medium	3.73	1.02	High	0.269	3
4. You have served as a class teacher, counselor, student club instructor, or other student work last year.	3.25	1.57	Medium	4.24	1.21	High	0.305	2

Table 4.5 (Continued)

Social development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$ (I – D)/D	Rank
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level		
5. You have guide students to participate in skills competitions, technical skills training, club activities, etc. last year.	3.20	1.21	Medium	4.26	1.09	High	0.331	1
6. You have provided guidance and help to students in their life, psychology, or further studies and employment.	3.57	1.15	High	4.38	0.98	High	0.227	6
Total	**3.20**	**0.28**	**Medium**	**4.06**	**0.27**	**High**	**0.269**	

The analysis of Table 4.5 provides the current and expected conditions of social development for vocational college teachers, including their mean scores, standard deviations (S.D.), and Priority Needs Index (PNI). The overall current condition has a mean score of 3.20 (S.D.=0.28), while the expected condition averages 4.06 (S.D.=0.27), resulting in a total PNI value of 0.269. This significant gap indicates that social development is a major area requiring targeted improvement.

The largest gap is observed in the item "You have guided students to participate in skills competitions, technical skills training, club activities, etc., last year," which has a PNI value of 0.331, ranking first. This reflects a significant shortfall in teachers' opportunities or capacity to guide students in extracurricular and competitive activities, which are critical for both teacher and student professional development. The second-largest gap is seen in "You have served as a class teacher, counselor, student club instructor, or other student work last year," with a PNI value of 0.305. This suggests challenges in engaging teachers in roles that support student growth beyond classroom teaching.

The item "You have undertaken any vocational courses or skills training business on or off campus last year" ranks third, with a PNI value of 0.269, highlighting limited teacher involvement in vocational training initiatives. Similarly, "You have attended lectures, reviews, exchanges, and other activities outside" shows a PNI value of 0.265, indicating insufficient participation in external professional and academic events that could broaden teachers' social engagement and knowledge base.

In contrast, the smallest gap is observed in "You have provided guidance and help to students in their life, psychology, or further studies and employment" (PNI=0.227). While this item still shows room for improvement, it suggests that teachers are relatively more active in supporting students' personal and academic development compared to other social engagement activities.

Overall, the findings show significant gaps in social development, particularly in areas related to student guidance, participation in competitions, vocational training programs, and external professional activities. The total PNI value of 0.269 underscores the importance of addressing these deficiencies to enhance teachers' social roles and engagement. By fostering greater involvement in these areas, teachers can develop stronger professional development, improve student outcomes, and promote sustainable development in their roles.

1.2.5 Analysis of current situation and expected situation of organize development

This research mainly used Mean, Standard Deviations and PNImodified to analyzed the situation of each variable.

Table 4.6 Analysis of current situation and expected situation of organize development

(n=381)

Organize development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$ (I – D)/D	Rank
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level		
1. Teachers have full rights to participate, know and supervise the affairs of higher vocational colleges.	3.76	1.06	High	4.23	0.78	High	0.125	3
2. Vocational colleges, from leaders to grassroots managers can respect teachers and value education.	3.89	0.97	High	4.2	0.62	High	0.080	8
3. The distribution of teaching remuneration, performance, and benefits in higher vocational colleges is tilted towards frontline teachers.	3.65	1.08	High	4.09	0.77	High	0.121	4

Table 4.6 (Continued)

Organize development	Current Situation (D)			Expected Situation (I)			PNI$_{modified}$	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level	(I – D)/D	
4. You think the current job title evaluation is fair and just.	3.77	1.04	High	4.32	0.67	High	0.146	2
5. Society, parents and students are increasingly recognizing vocational education.	3.83	0.98	High	4.19	0.98	High	0.094	6
6. Vocational colleges guide and help teachers to carry out career development planning.	3.77	1.03	High	4.34	1.01	High	0.151	1
7. Vocational colleges attach great importance to and maintain the mental health of teachers.	3.82	1.06	High	4.12	0.73	High	0.079	9
8. Vocational colleges have developed a "step-by-step" training plan for teacher development.	3.76	1.07	High	4.09	0.67	High	0.088	7

Table 4.6 (Continued)

Organize development	Current Situation (D)			Expected Situation (I)			$PNI_{modified}$ (I – D)/D	Rank
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level		
9. Vocational colleges should organize professional learning and training for teachers at least once a year.	3.87	0.99	High	4.13	0.72	High	0.067	10
10. You are satisfied with the school's support and funding for teacher development.	3.60	1.14	High	4.02	0.45	High	0.117	5
Total	3.77	0.29	High	4.17	0.36	High	0.106	

Table 4.6 provides an analysis of the current and expected conditions of organize development for vocational college teachers, including the mean scores, standard deviations (S.D.), Priority Needs Index (PNI), and rankings for individual items. The overall current condition has a mean score of 3.77 (S.D.=0.29), while the expected condition is higher, with a mean score of 4.17 (S.D.=0.36), resulting in a total PNI value of 0.106. This indicates that organize development is relatively aligned with expectations but still requires some targeted improvements.

The highest-ranked item with the largest gap is "Vocational colleges guide and help teachers to carry out career development planning," with a PNI value of 0.151. This result reflects a critical need for career development planning to support teachers' long-term growth and success. Another significant gap is seen in "You think the current job title evaluation is fair and just," with a PNI value of 0.146, indicating dissatisfaction with the fairness and transparency of evaluation systems. Similarly, the item "The distribution of teaching remuneration, performance, and benefits in higher vocational colleges is tilted towards frontline teachers" ranks fourth, with a PNI of 0.140, highlighting concerns about the equitable distribution of rewards and recognition.

On the other hand, the smallest gap is observed in "Vocational colleges attach great importance to and maintain the mental health of teachers" (PNI=0.079). This suggests that institutions have made relatively good progress in addressing mental health needs. Similarly, the item "Vocational colleges, from leaders to grassroots managers, can respect teachers and value education" has a lower PNI of 0.080, reflecting moderate satisfaction with leadership respect and recognition.

The overall analysis indicates that while organizational support for teachers is relatively strong, there are still notable gaps in career development planning, job title evaluation fairness, and remuneration and performance distribution. Addressing these areas will be essential for enhancing teachers' confidence in the institution, improving motivation, and fostering a stronger alignment between current conditions and teachers' expectations. By implementing fair evaluation systems, promoting

equitable reward structures, and providing robust career planning, vocational colleges can support the sustainable organize development of teachers.

Results of development the strategies for Professional development of high-quality vocational teachers in the new era.

2.1 Taking analysis results of the current situation and expected situation that developing the strategies for professional development of high -quality vocational teachers in the new era

2.1.1 Results of SWOT and TOWS Matric Analysis of life development

Based on the SWOT and TOWS Matrix approach, establish a SWOT analysis table highlighting the Strengths, Weaknesses, Opportunities, and Threats related to the data provided in life development.

Table 4.7 SWOT Analysis: life development aspect

SWOT	Findings
S (Strengths)	S1. High alignment with professional values and interpersonal communication with students.
	S2. Teachers' strong sense of purpose in "teaching and educating people".
	S3. Positive feedback from students and parents.
W (Weakness)	W1. High professional and life pressure experienced last year.
	W2. Physical health issues, including chronic diseases.
	W3. Poor lifestyle habits such as staying up late, sedentary behavior, and unhealthy practices.
O (Opportunities)	O1. Improving career development plans.
	O2. Enhancing awards and recognitions, such as "Excellent Teacher" titles.
	O3. Promoting new professional knowledge, methods, and technologies.

Table 4.7 (Continued)

SWOT	Findings
T (Threats)	T1. Persistent mental and physical health challenges may hinder sustainable development. T2. Limited recognition and career growth opportunities for teachers. T3. Ineffective stress management systems and insufficient institutional support.

The results of the SWOT analysis for the life development aspect of the professional development of high-quality vocational teachers show key strengths, weaknesses, opportunities, and threats. Among the strengths, teachers demonstrate strong alignment with their professional values and positive interpersonal relationships with students. This is evident from the low PNI value (0.053) for maintaining equal dialogue with students, which ranked 12th. Additionally, teachers exhibit a clear sense of purpose in their profession, particularly in "teaching and educating people", and receive positive feedback from students and parents, reflected in a PNI value of 0.139. These strengths underscore teachers' strong dedication and professional motivation.

However, notable weaknesses were also identified. High levels of professional and life pressure remain a significant concern, with a PNI value of 0.349 (rank 2nd), pointing to considerable stress. Physical health issues, such as chronic diseases, were also highlighted as a major weakness. Poor lifestyle habits, including staying up late, sedentary behavior, and unhealthy practices, further contribute to these concerns, with a PNI value of 0.234.

The analysis also reveals opportunities for improvement. These include enhancing career development plans for teachers and increasing awards and recognitions, such as "Excellent Teacher" titles, which had a PNI value of 0.81.

Additionally, promoting the adoption of new professional knowledge, methods, and technologies presents a significant opportunity.

Finally, the threats identified include persistent mental and physical health challenges, which may hinder the sustainable professional development of high-quality vocational teachers. Limited recognition and career growth opportunities also pose significant obstacles, along with ineffective stress management systems and insufficient institutional support. Addressing these weaknesses and threats while leveraging strengths and opportunities is essential for fostering sustainable growth and well-being among high-quality vocational teachers.

Based on the TOWS Matrix analysis of Table 4.7, the following strategies are suggested for improving the life development aspect in the professional development of high-quality vocational teachers. These strategies leverage the strengths, address weaknesses, capitalize on opportunities, and mitigate threats to promote sustainable teacher growth.

1) S-O Strategies (Strength-Opportunity):

S1 and O1: Teachers' high alignment with professional values and strong communication with students can be utilized to improve career development planning. Institutions should design structured, long-term career roadmaps that empower teachers and align their professional goals with institutional growth.

S2 and O3: Teachers' strong sense of purpose in teaching and educating people should be harnessed to promote continuous learning and professional growth. Programs that introduce new teaching methods, technologies, and professional knowledge will enhance teachers' skills and satisfaction.

S3 and O2: Positive feedback from students and parents can support recognition systems like Excellent Teacher awards. Highlighting teachers' achievements will motivate them and create a culture of excellence.

2) S-T Strategies (Strength-Threat):

S1 and T2: Teachers' strong professional alignment and communication skills can be leveraged to counteract limited recognition and career growth opportunities.

Strengthening teacher-student feedback mechanisms and showcasing teachers' contributions to leadership will address this gap.

S2 and T1: Teachers' sense of purpose can help mitigate mental and physical health challenges by introducing wellness programs. By integrating professional development opportunities with health and stress management initiatives, teachers' well-being and motivation can be enhanced.

3) W-O Strategies (Weakness-Opportunity):

W1 and O1: High professional and life pressure (PNI = 0.349) can be addressed through targeted stress management programs. Incorporating career development initiatives, such as mentorship or awards, will alleviate pressure while motivating teachers toward growth.

W2 and O3: Physical health challenges and poor lifestyle habits can be tackled by promoting health and wellness programs alongside opportunities for adopting innovative teaching methods and technologies. This will improve teachers' well-being while enhancing their professional competence.

W3 and O2: Address poor lifestyle habits by introducing recognition programs like "Excellent Teacher" awards. These initiatives can encourage teachers to prioritize their professional and personal growth, fostering a healthier work-life balance.

4) W-T Strategies (Weakness-Threat):

W1 and T1: To counteract professional stress and persistent health issues, institutions should develop comprehensive wellness policies. Providing access to healthcare resources, stress management workshops, and counseling will help teachers balance professional demands and health.

W2 and T3: Physical health challenges and poor lifestyle habits can be mitigated by improving institutional support systems. Schools should establish policies that provide adequate resources for health management, career advancement, and stress reduction.

W3 and T2: Address the lack of lifestyle management and career opportunities by creating fair recognition mechanisms and structured pathways for

teacher growth. This approach can reduce burnout and stagnation while fostering sustainable development.

The TOWS Matrix analysis provides a clear pathway for improving the life development aspect of high-quality vocational teachers. By building on strengths like teachers' professional values and purpose, schools can introduce career development and recognition programs. Simultaneously, addressing weaknesses such as stress and health issues through targeted interventions and mitigating external threats like insufficient institutional support will foster sustainable growth. These strategies aim to create a supportive environment where teachers can thrive personally and professionally.

2.1.2 Results of SWOT and TOWS Matric Analysis of professional development

Based on the SWOT and TOWS Matrix approach, establish a SWOT analysis table highlighting the Strengths, Weaknesses, Opportunities, and Threats related to the data provided in professional development.

Table 4.8 SWOT Analysis: professional development aspect

SWOT	Findings
S (Strengths)	S1. Strong professional ability in using project-based teaching and task-driven teaching methods.
	S2. High proficiency in developing mixed online and offline teaching.
	S3. Teaching quality rated as excellent by the school.
W (Weakness)	W1. Low participation in teaching competitions and skills competitions.
	W2. Limited transformation of teaching and research results into economic or social benefits.
	W3. Insufficient ability in using SPSS software and other research tools for data analysis.

Table 4.8 (Continued)

SWOT	Findings
O (Opportunities)	O1. Promoting the use of training qualification certificates to improve teaching quality.
	O2. Increasing opportunities for teachers to publish research papers, patents, and monographs.
	O3. Enhancing professional development through continuous education and training programs on modern teaching methods.
T (Threats)	T1. Limited institutional and financial support for participating in competitions, research activities, and teaching innovations.
	T2. Insufficient platforms for teachers to showcase teaching and research results, hindering their professional growth.
	T3. High workload and lack of time for teachers to pursue advanced skills development and research activities, affecting overall performance and growth.

The SWOT analysis for the professional development aspect of high-quality vocational teachers, as shown in Table 4.8, provides key findings regarding strengths, weaknesses, opportunities, and threats:

The professional development of vocational teachers demonstrates notable strengths. Teachers exhibit strong professional abilities in applying project-based and task-driven teaching methods (S1) and show high proficiency in developing mixed online and offline teaching methods (S2), which aligns with modern teaching practices. Additionally, their teaching performance has been recognized as excellent by schools (S3), reflecting their competence and effective classroom management.

Despite these strengths, several weaknesses hinder further development. Teachers display low participation in teaching competitions and skills competitions (W1), which limits their opportunities for recognition and professional growth. There is

also a lack of transformation of teaching and research results into meaningful economic or social benefits (W2), reflecting a gap between theory and practical outcomes. Another challenge is the insufficient ability to use tools such as SPSS software and other research technologies for advanced data analysis (W3).

The analysis identifies multiple opportunities to enhance professional development. Promoting the use of training qualification certificates can improve teaching quality (O1), while increasing opportunities for teachers to publish research papers, patents, and monographs supports academic advancement and career recognition (O2). Additionally, offering continuous education and training programs that focus on modern teaching techniques provides a clear pathway for teachers to further enhance their professional skills (O3).

Several threats present significant challenges to achieving sustainable professional development. Teachers face limited institutional and financial support, which restricts their participation in competitions, research activities, and teaching innovations (T1). There are also insufficient platforms for showcasing teaching achievements and research results, hindering visibility and recognition (T2). Finally, high workloads and lack of time prevent teachers from pursuing advanced skills development and research activities, which affects their overall growth and performance (T3).

The SWOT analysis highlights that vocational teachers possess strong teaching capabilities and are recognized for their quality performance, yet they face barriers such as limited competition participation and insufficient research transformation. Opportunities such as training certifications and research publication support can be leveraged to address these weaknesses. However, institutional challenges, including limited support and time constraints, must be addressed to ensure the professional development of high-quality vocational teachers is sustainable and impactful.

Based on the TOWS Matrix analysis of Table 4.8, the following strategies are suggested for improving the professional development aspect in the professional development of high-quality vocational teachers. These strategies leverage the

strengths, address weaknesses, capitalize on opportunities, and mitigate threats to promote sustainable teacher growth.

1) S-O Strategies (Strength-Opportunity):

S1 and O1: Utilize teachers' strong professional abilities in project-based and task-driven teaching methods to promote the use of training qualification certificates, ensuring a structured approach to skill improvement and professional certification.

S2 and O3: Capitalize on teachers' proficiency in developing mixed online and offline teaching to implement continuous education and training programs focusing on modern teaching techniques, innovative technologies, and blended learning practices.

S3 and O2: Leverage the recognition of excellent teaching quality to encourage teachers to participate in publishing research papers, patents, and monographs, enhancing their academic visibility and career growth.

2) S-T Strategies (Strength-Threat):

S1 and T1: Leverage teachers' strong project-based and task-driven teaching skills to demonstrate the value of their contributions, advocating for increased institutional and financial support for participation in teaching competitions, research activities, and innovations.

S2 and T3: Use teachers' ability to develop online and offline teaching to create flexible teaching and research schedules, helping alleviate the impact of high workloads and time constraints.

S3 and T2: Highlight teachers' excellent teaching performance to advocate for improved platforms where teaching achievements and research results can be showcased, enhancing visibility and recognition.

3) W-O Strategies (Weakness-Opportunity):

W1 and O1: Introduce institutional support to encourage greater participation in teaching competitions and skills competitions as part of professional qualification programs, improving recognition and motivation.

W2 and O2: Address the limited transformation of research results by providing targeted opportunities for teachers to publish research papers, patents, and

monographs, translating theoretical outcomes into meaningful social and economic benefits.

W3 and O3: Provide continuous education and training programs to improve teachers' skills in using tools like SPSS software and other research technologies, enhancing their ability to conduct advanced data analysis and research.

4) W-T Strategies (Weakness-Threat):

W1 and T1: Develop institutional policies to provide financial and logistical support for teachers to participate in competitions, reducing the gap caused by limited opportunities.

W2 and T2: Reform systems to create platforms for showcasing research results and teaching achievements, addressing the weakness of limited research transformation while mitigating institutional recognition issues.

W3 and T3: Introduce tailored training programs and stress reduction strategies to balance workloads, ensuring teachers have the necessary time to enhance their research and professional skills without burnout.

The proposed strategies focus on leveraging teachers' existing strengths, such as strong teaching methods and blended learning capabilities, to improve certification programs, research output, and institutional visibility. Weaknesses like low competition participation, limited research transformation, and insufficient research skills are addressed by capitalizing on opportunities for training and recognition. Threats such as limited institutional support, time constraints, and lack of platforms for showcasing results are mitigated through institutional reforms, targeted training, and advocacy for financial resources.

2.1.3 Results of SWOT and TOWS Matric Analysis of social development

Based on the SWOT and TOWS Matrix approach, establish a SWOT analysis table highlighting the Strengths, Weaknesses, Opportunities, and Threats related to the data provided in professional development.

Table 4.9 SWOT Analysis: social development aspect

SWOT	Findings
S (Strengths)	S1. Active participation in guiding students in skills competitions and technical training.
	S2. Teachers provide guidance and help to students in their lives, psychology, and further studies.
W (Weakness)	W1. Low participation in social groups, academic organizations, and public welfare activities.
	W2. Limited involvement in lectures, reviews, and exchanges outside school.
	W3. Insufficient participation in vocational courses or skills training business off-campus.
O (Opportunities)	O1. Encouraging participation in skills competitions and academic activities to boost professional visibility and skill enhancement.
	O2. Establishing programs that promote teacher involvement in public welfare organizations and off-campus training, expanding their influence.
T (Threats)	T1. Persistent lack of institutional incentives to motivate teachers' participation in off-campus skills training and social organizations.
	T2. Limited time and resources for attending external events, conferences, and activities outside the institution.
	T3. Teachers face competing priorities in guiding students versus engaging in personal development and external professional growth.

The analysis of the social development aspect from Table 4.9 of professional development for high-quality vocational teachers highlights several strengths, weaknesses, opportunities, and threats.

In terms of strengths, teachers exhibit active participation in guiding students through skills competitions and technical training, which demonstrates their dedication to enhancing student competencies (S1). Additionally, teachers provide essential guidance and support to students, contributing to their personal life, psychological well-being, and further studies (S2). These strengths reflect the teachers' commitment to fostering student growth beyond the classroom.

However, there are notable weaknesses in this area. Teachers show low participation in social groups, academic organizations, and public welfare activities, which limits their external professional engagement (W1). Furthermore, teachers have limited involvement in lectures, reviews, and exchanges outside the institution (W2), reducing opportunities for professional networking and knowledge sharing. Another significant weakness is the insufficient participation in off-campus vocational skills training programs, hindering teachers from expanding their expertise and practical knowledge (W3).

Several opportunities exist to address these weaknesses. Schools can encourage teachers to participate in skills competitions and academic activities to boost their professional visibility and enhance their skills (O1). Additionally, structured programs can be established to promote teacher involvement in public welfare organizations and off-campus training, expanding their professional influence and fostering a sense of community engagement (O2).

Despite these opportunities, there are significant threats that may hinder progress. Persistent institutional challenges include a lack of incentives and support to motivate teachers to participate in off-campus skills training and social organizations (T1). Teachers also face time and resource constraints that limit their ability to attend external events, conferences, and professional activities (T2). Finally, teachers must balance competing priorities between guiding students and engaging in

their own personal development and external professional growth, which further complicates their capacity to pursue broader opportunities (T3).

In conclusion, while teachers demonstrate strong commitment to student growth, significant gaps remain in their external professional engagement. By leveraging strengths and addressing weaknesses through structured institutional support and incentive systems, schools can enhance the social development of teachers, creating a more balanced and sustainable approach to their professional development.

Based on the TOWS Matrix analysis of Table 4.9, the following strategies are suggested for improving the social development aspect in the professional development of high-quality vocational teachers. These strategies leverage the strengths, address weaknesses, capitalize on opportunities, and mitigate threats to promote sustainable teacher growth.

1) S-O Strategies (Strengths-Opportunities):

S1 and O1: Utilize teachers' active participation in guiding students in skills competitions and technical training to encourage broader participation in academic activities and public competitions. This can boost teachers' professional visibility and skill enhancement while reinforcing their existing strengths.

S2 and O2: Teachers' role in providing guidance and support for students' lives and well-being can be expanded through structured programs that promote teacher involvement in public welfare organizations and off-campus training. This will not only increase their social engagement but also enrich their professional experience.

2) S-T Strategies (Strengths-Threats):

S1 and T1: Leverage teachers' active involvement in student competitions to advocate for institutional incentives that motivate participation in off-campus training and social organizations. Highlighting their positive impact on students can help justify the need for institutional support.

S2 and T3: Teachers' ability to support students' personal development can be harnessed to balance competing priorities. Schools can introduce policies that

formalize time allocation for teachers' participation in professional development activities while maintaining their student-focused responsibilities.

3) W-O Strategies (Weaknesses-Opportunities):

W1 and O1: Address the low participation in social groups and academic organizations by implementing initiatives that incentivize teachers to participate in skills competitions and academic events. These programs can serve as platforms for professional growth and social interaction.

W2 and O2: To resolve limited involvement in external lectures and exchanges, schools can establish collaborations with public welfare organizations and external training programs to provide teachers with opportunities to expand their influence and social networks.

W3 and O1: Tackle insufficient participation in vocational skills training by developing accessible programs and competitions that align with teachers' interests and teaching priorities, fostering increased engagement.

4) W-T Strategies (Weaknesses-Threats):

W1 and T1: Overcome low participation in social groups and off-campus activities by introducing institutional policies that provide financial and non-financial incentives. Addressing institutional barriers can motivate teachers to engage in external training.

W2 and T2: Combat limited involvement in external lectures and activities caused by time constraints by implementing flexible schedules or time allowances for participation in professional development opportunities.

W3 and T3: Mitigate competing priorities and insufficient participation in vocational courses by establishing structured professional development plans that balance teachers' external professional growth with their on-campus responsibilities.

By aligning strengths with opportunities, the TOWS analysis provides pathways to capitalize on existing teacher capabilities while addressing weaknesses through targeted programs and policies. Strategies focus on enhancing participation, improving institutional support, and balancing teacher priorities to advance their social development effectively.

2.1.4 Results of SWOT and TOWS Matric Analysis of organize development

Based on the SWOT and TOWS Matrix approach, establish a SWOT analysis table highlighting the Strengths, Weaknesses, Opportunities, and Threats related to the data provided in professional development.

Table 4.10 SWOT Analysis: organize development aspect

SWOT	Findings
S (Strengths)	S1. Teachers have full rights to participate, know, and supervise the affairs of higher vocational colleges.
	S2. Leaders and managers at vocational colleges respect teachers and value education, fostering a supportive environment.
	S3. Vocational colleges actively guide teachers in career development planning, promoting structured and organized pathways for growth.
W (Weakness)	W1. Distribution of teaching remuneration and benefits is imbalanced and tilted toward frontline teaching staff.
	W2. Limited satisfaction with the current job title evaluation system, causing fairness concerns among teachers.
	W3. Insufficient training and funding for professional learning and organized teacher development programs.
O (Opportunities)	O1. Establish a step-by-step structured training program for teacher development, ensuring continuous professional growth.
	O2. Promote mental health initiatives and provide support systems to improve teachers' well-being and satisfaction.
	O3. Organize regular teacher development activities, such as professional learning, funding opportunities, and leadership workshops, at least annually.

Table 4.10 (Continued)

SWOT	Findings
T (Threats)	T1. Persistent funding constraints limit organized professional development programs and training opportunities.
	T2. Institutional inefficiencies in implementing career development policies hinder teachers' ability to plan and execute their growth effectively.
	T3. Limited recognition and institutional support for teachers' organizational efforts reduce motivation and engagement in vocational college activities.

The SWOT analysis for the organizational development aspect shown as Table 4.10 provides several key findings that impact the professional growth of high-quality vocational teachers.

The analysis identifies three primary strengths. First, teachers have full rights to participate, understand, and supervise the affairs of higher vocational colleges (S1). This level of involvement ensures teachers feel included in institutional governance and decision-making processes, fostering a sense of ownership. Second, leaders and managers at vocational colleges demonstrate respect for teachers and value education, creating a supportive and collaborative environment conducive to professional growth (S2). Third, vocational colleges actively provide structured guidance for career development planning, enabling teachers to follow organized and systematic pathways for advancement (S3).

However, several weaknesses hinder organizational development. The distribution of teaching remuneration and benefits is imbalanced, with a notable tilt toward frontline teaching staff, which raises concerns about fairness and equity (W1). Teachers also expressed dissatisfaction with the current job title evaluation system, citing its perceived unfairness and lack of transparency (W2). Furthermore, insufficient

training opportunities and limited funding for professional learning programs restrict teachers' ability to enhance their skills and achieve growth (W3).

Despite these challenges, opportunities for improvement exist. Establishing a step-by-step, structured training program can ensure continuous professional development for teachers (O1). Additionally, promoting mental health initiatives and implementing robust support systems can improve teachers' well-being and overall satisfaction (O2). Regular organization of professional development activities, such as leadership workshops, learning opportunities, and teacher training sessions, can further enhance professional growth (O3).

Nevertheless, there are notable threats to organizational development. Persistent funding constraints limit the implementation of professional development programs and training opportunities for teachers (T1). Institutional inefficiencies in executing career development policies hinder teachers' ability to plan and realize their long-term growth effectively (T2). Finally, limited institutional recognition and inadequate support for teachers' contributions reduce motivation and engagement in broader college activities (T3).

In summary, while strengths such as teacher involvement in decision-making and institutional support create a positive foundation for growth, weaknesses like inequitable resource distribution and insufficient funding present challenges. Addressing these weaknesses through structured training programs and mental health initiatives can help capitalize on existing opportunities. Simultaneously, mitigating threats like funding limitations and institutional inefficiencies is crucial to ensuring sustainable organizational development for high-quality vocational teachers.

Based on the TOWS Matrix analysis from Table 4.10, the following strategies are developed for improving the organizational development aspect of high-quality vocational teachers:

1) S-O Strategies (Strength-Opportunity): Leverage strengths to capitalize on opportunities.

S1 and O1: Utilize teachers' full participation rights in vocational college affairs to establish a step-by-step structured training program. By involving teachers in

designing the program, institutions can ensure its relevance, fostering continuous professional growth and engagement.

S2 and O2: Leverage the respect and support shown by vocational college leaders to implement mental health initiatives. Providing counseling, stress-relief workshops, and wellness programs can enhance teachers' satisfaction and overall well-being.

S3 and O3: Strengthen career development pathways by organizing regular teacher development workshops and professional learning activities. This will allow teachers to pursue structured professional growth while benefiting from supportive guidance provided by institutions.

2) S-T Strategies (Strength-Threat): Use strengths to mitigate or eliminate threats.

S1 and T1: Leverage teachers' participation rights to advocate for increased funding for professional development programs. Teachers can collaboratively propose cost-effective solutions to address funding constraints while maintaining development opportunities.

S2 and T2: Build on the supportive leadership environment to reduce institutional inefficiencies in career development policies. Streamlining evaluation systems and career planning can help teachers effectively achieve professional milestones.

S3 and T3: Use the organized career development pathways to strengthen institutional recognition systems. By implementing structured evaluations and regular acknowledgment of teacher contributions, motivation and engagement can be significantly improved.

3) W-O Strategies (Weakness-Opportunity): Address weaknesses while taking advantage of opportunities.

W1 and O1: Address imbalanced distribution of teaching remuneration and benefits by incorporating equity-focused policies within structured training programs. This can motivate teachers to actively participate in growth opportunities.

W2 and O2: Tackle dissatisfaction with the job title evaluation system by integrating fairer, transparent evaluation mechanisms while promoting teacher well-being through mental health initiatives and support systems.

W3 and O3: Overcome insufficient funding for training by organizing professional development activities in cost-efficient formats, such as annual workshops, webinars, and collaborative peer-learning sessions.

4) W-T Strategies (Weakness-Threat): Minimize weaknesses to mitigate threats.

W1 and T1: Mitigate funding limitations by advocating for better resource allocation while ensuring remuneration systems are restructured for fairness and balance. Transparency and prioritization can help address concerns about inequity.

W2 and T2: Resolve institutional inefficiencies by reforming job title evaluation systems and implementing clear, actionable career policies that align with teachers' professional goals.

W3 and T3: Overcome insufficient training and funding by collaborating with external organizations and stakeholders to secure additional support for professional learning and development programs. Partnerships can alleviate resource constraints and improve teacher engagement.

The TOWS analysis suggests strategies that focus on leveraging strengths such as teacher participation, supportive leadership, and organized career pathways to capitalize on opportunities like structured training programs and mental health initiatives. At the same time, it addresses weaknesses like imbalanced remuneration and insufficient funding through targeted reforms, ensuring they do not escalate due to institutional inefficiencies or funding constraints. This holistic approach promotes sustainable organizational development for high-quality vocational teachers.

2.1.5 Results of SWOT and TOWS Matric Analysis of life development, professional development, social development, and organize development aspects

Based on the SWOT and TOWS Matrix approach, establish a SWOT analysis table highlighting the Strengths, Weaknesses, Opportunities, and Threats related to the data provided in professional development.

Table 4.11 SWOT Analysis: life development, professional development, social development, and organize development aspects

SWOT	Findings
S (Strengths)	S1. Relatively strong life development indicators, including personal satisfaction and motivation.
	S2. Professional development remains steady, reflecting teachers' foundational expertise and continuous improvement mindset.
	S3. Organized support systems exist in vocational institutions, contributing to structural career planning and development pathways.
W (Weakness)	W1. Social development remains the weakest aspect, reflecting low participation in social engagements, skills training, and external collaborations.
	W2. Teachers experience challenges balancing institutional demands with broader career opportunities, leading to stagnation in skills and visibility.
	W3. Unequal institutional attention and support for structured development initiatives hinder sustainable teacher progress.
O (Opportunities)	O1. Enhancing structured professional learning programs to improve life and career satisfaction among teachers.
	O2. Providing opportunities for teachers to actively engage in social skills training, external academic exchanges, and collaborations to improve social development.
	O3. Strengthening institutional support mechanisms through organized career pathways and advanced training systems.
T (Threats)	T1. Insufficient institutional funding and policy frameworks limit sustainable development initiatives.

Table 4.11 (Continued)

SWOT	Findings
	T2. Limited recognition for achievements in social and professional development reduces teacher motivation for broader engagement.
	T3. High workload and administrative pressure create a barrier to balancing life development, professional training, and social engagement activities.

The SWOT analysis in Table 4.11 provides a comprehensive overview of the sustainable development aspects of high-quality vocational teachers, focusing on life development, professional development, social development, and organizational development.

The strengths highlight key areas where teachers excel. First, teachers demonstrate relatively strong life development indicators, including personal satisfaction and motivation, which serve as a solid foundation for further growth (S1). Second, steady professional development reflects teachers' foundational expertise and continuous improvement mindset, showcasing their ability to maintain professional quality and growth (S2). Additionally, organized support systems within vocational institutions contribute significantly to career planning and structured pathways for development, enabling teachers to progress systematically (S3).

The weaknesses emphasize significant challenges faced by vocational teachers. Social development emerges as the weakest aspect, with low participation in social engagements, skills training, and external collaborations, limiting opportunities for professional visibility and growth (W1). Teachers also struggle to balance institutional demands with broader career opportunities, leading to stagnation in skills development (W2). Furthermore, unequal institutional attention and inadequate support for structured development initiatives hinder the sustainable progress of teachers (W3).

The opportunities presented in the analysis provide pathways to address the weaknesses and enhance strengths. Strengthening structured professional learning programs can improve teachers' life satisfaction and overall career development (O1). Opportunities to actively engage teachers in social skills training, external academic exchanges, and collaborations can address the gaps in social development and expand professional visibility (O2). Institutional support mechanisms, such as organized career pathways and advanced training systems, offer additional avenues for long-term growth and professional advancement (O3).

Finally, the threats highlight external barriers that impact sustainable development. Insufficient institutional funding and policy frameworks limit the implementation of professional development initiatives, constraining growth opportunities (T1). Additionally, the lack of recognition for teachers' achievements in social and professional development reduces motivation for broader engagement (T2). High workloads and administrative pressures further create significant challenges, preventing teachers from balancing life development, professional training, and social engagement activities effectively (T3).

In conclusion, while vocational college teachers exhibit strengths in life satisfaction, professional expertise, and institutional support, their social development remains a critical area for improvement. Leveraging opportunities such as structured professional learning programs, enhanced collaborative initiatives, and improved institutional support can address existing weaknesses. However, addressing threats such as funding limitations, insufficient recognition, and workload pressures will be essential for achieving sustainable and balanced development.

Based on the TOWS Matrix analysis provided in Table 4.11, here are the strategies suggested for the sustainable development of high-quality vocational teachers, integrating life development, professional development, social development, and organizational development:

1) S-O Strategies (Strength-Opportunity): Leverage strengths to capitalize on opportunities

S1 and O1: Utilize teachers' relatively strong life development indicators, such as personal satisfaction and motivation, to enhance structured professional learning programs. Implement targeted professional growth opportunities to further improve life and career satisfaction.

S2 and O2: Capitalize on teachers' steady professional development foundation to encourage active participation in social skills training, academic collaborations, and external exchanges, fostering social and professional development.

S3 and O3: Strengthen organized support systems in vocational institutions to develop structured pathways for professional learning and career advancement, ensuring teachers' growth aligns with institutional goals.

2) S-T Strategies (Strength-Threat): Use strengths to overcome or mitigate threats

S1 and T3: Leverage teachers' personal motivation to introduce work-life balance programs that address high workload and administrative pressures, enabling sustainable development without overburdening teachers.

S2 and T2: Use teachers' foundational expertise and commitment to professional improvement to establish recognition mechanisms, such as awards and acknowledgments, which reduce motivational gaps in social and professional achievements.

S3 and T1: Maximize existing organizational support systems to advocate for improved funding and policy frameworks, ensuring resources are effectively allocated to professional development initiatives.

3) W-O Strategies (Weakness-Opportunity): Address weaknesses by utilizing opportunities

W1 and O2: Address low participation in social engagements and external collaborations by providing targeted opportunities for teachers to engage in structured skills training, academic exchanges, and collaborative programs.

W2 and O1: Tackle stagnation in career growth by enhancing structured professional learning initiatives that focus on balancing institutional demands with broader career development opportunities.

W3 and O3: Improve institutional support systems for teacher development by implementing organized pathways and advanced training systems to address unequal attention to structured growth programs.

4) W-T Strategies (Weakness-Threat): Minimize weaknesses to mitigate external threats

W1 and T1: Combat low participation in social development activities by securing institutional funding and policy support for off-campus engagement programs, enabling teachers to actively participate in broader professional initiatives.

W2 and T3: Resolve career stagnation and workload challenges by implementing measures that prioritize workload management while fostering professional growth opportunities.

W3 and T2: Mitigate insufficient institutional support and recognition mechanisms by creating fair and transparent evaluation systems to acknowledge achievements in both professional and social development domains.

This analysis integrates strengths, weaknesses, opportunities, and threats to provide a comprehensive strategy framework aimed at enhancing the sustainable development of high-quality vocational teachers.

2.1.6 SWOT and PEST Analysis of total: life development, professional development, social development, organize development

Table 4.12 is the Results of SWOT and TOWS Matrix Analysis summarizing all strategies mentioned for developing high-quality vocational teachers. The table integrates Strengths (S), Weaknesses (W), Opportunities (O), and Threats (T) with the respective strategies.

Table 4.12 Results of SWOT and TOWS Matrix Analysis for High-Quality Vocational Teachers' Development

S (Strengths)	W (Weaknesses)
S1 Establish fair and transparent job title evaluation systems. S2 Leverage dual-competency skills to align teaching with industry demands. S3 Strengthen institutional recognition systems (e.g., awards, "Excellent Teacher"). S4 Integrate modern technologies and digital tools in teaching practices. S5 Foster collaboration through industry-academia partnerships for practical learning. S6 Promote teacher involvement in mentorship and public welfare programs.	W1 Improve stress management and wellness programs to enhance work-life balance. W2 Address low participation in skills competitions and external academic activities. W3 Mitigate insufficient opportunities for research and publication. W4 Tackle administrative workload to allow better focus on teaching and research. W5 Rectify unequal institutional support for professional development programs. W6 Improve limited career advancement opportunities to motivate teachers.
O (Opportunities)	**T (Threats)**
O3 Develop robust training programs for advanced skills and leadership development. O4 Support teachers in participating in public welfare, skills competitions, and mentorship. O5 Strengthen teacher collaboration with industries to meet changing market demands.	T3 Reduce increasing workload and administrative pressures impacting teacher efficiency. T4 Address gaps in institutional support for balancing life development and professional goals. T5 Minimize barriers to implementing modern teaching technologies and tools.

Table 4.12 presents a comprehensive SWOT and TOWS analysis of high-quality vocational teachers' development. Among the identified strengths are the establishment of transparent evaluation systems, the promotion of dual-competency

skills to meet industry demands, and the enhancement of teacher recognition through awards such as "Excellent Teacher." Additional strengths include integrating modern technologies and digital tools into teaching, fostering collaboration between academia and industry for practical learning, and encouraging teacher involvement in mentorship and public welfare initiatives.

However, several weaknesses are highlighted, including the need for improved stress management and wellness programs, low participation in skills competitions and academic activities, and insufficient opportunities for research and publication. Other challenges include administrative workloads that detract from teaching and research, inadequate institutional support for professional development, and limited career advancement opportunities for teachers.

On the positive side, various opportunities are available, such as structured and long-term career development pathways, expanded research and publication prospects, and robust training programs for advanced skills and leadership development. Opportunities also lie in supporting teacher participation in public welfare and mentorship initiatives and strengthening collaboration with industries to address changing market demands.

Despite these prospects, threats remain, including funding constraints for professional development initiatives, limited recognition of teaching and research achievements, and administrative pressures that affect teacher performance. Other risks include challenges in balancing professional and personal responsibilities and barriers to adopting modern teaching technologies. Addressing these challenges while leveraging strengths and opportunities can significantly enhance the professional growth of vocational teachers.

Table 4.13 OT-PEST Analysis for Strategies Development

PEST Factors	Opportunities (O)	Threats (T)	Strategies
Political (P)	- Establish policies to promote teacher training programs and career pathways. - Support institutional frameworks for fair job title evaluation systems.	- Limited funding and unclear policies hinder teacher professional development. - Institutional inefficiencies reduce teachers' growth opportunities.	- Advocate for clear and supportive policies to fund teacher development programs. - Reform policies to create transparent and equitable evaluation systems for teachers.
Economic (E)	- Increase funding for professional learning and research opportunities. - Enhance public-private partnerships to align teaching with industry demands.	- Financial constraints limit organized development and training initiatives. - Lack of incentives reduces teacher motivation for continuous improvement.	- Secure financial investment to implement wellness programs and reduce administrative burdens. - Foster industry-academia collaborations to provide funding and incentives for skill development.
Social (S)	- Promote teacher participation in social welfare programs, competitions, and mentorship. - Enhance recognition systems for achievements (e.g., awards like "Excellent Teacher").	- High workload and stress affect teachers' work-life balance. - Limited societal recognition of teachers' contributions impacts morale.	- Implement stress management programs and provide institutional support for wellness. - Strengthen recognition systems to motivate teachers and showcase their societal impact.

Table 4.13 (Continued)

PEST Factors	Opportunities (O)	Threats (T)	Strategies
Technological (T)	- Integrate advanced teaching tools and digital platforms into educational practices. - Use technology for virtual collaboration and continuous learning opportunities.	- Teachers face barriers in adapting to modern technologies. - Limited resources for adopting innovative technologies in teaching.	- Provide training to enhance teachers' digital literacy and integrate digital tools effectively. - Invest in technology-driven learning platforms to facilitate professional development.

The OT-PEST analysis which shown as Table 4.13 identifies key opportunities and threats across four dimensions-political, economic, social, and technological-that influence strategies for enhancing the professional development of vocational teachers.

In the political dimension, opportunities include establishing supportive policies to promote teacher career pathways and implementing fair job title evaluation systems. However, threats such as limited funding, unclear policies, and institutional inefficiencies hinder teachers' professional growth. To address this, strategies involve advocating for supportive funding policies, ensuring clear and transparent frameworks, and reforming evaluation systems to create equitable opportunities for teachers.

The economic dimension reveals opportunities to increase funding for professional learning initiatives and foster industry partnerships. Financial constraints, however, pose a significant challenge, limiting organized development and training programs. Strategies to overcome these barriers include securing financial investments to support wellness programs, reducing administrative burdens to allow teachers to focus on professional tasks, and fostering collaborations with industries to provide funding and incentives for skill development.

In the social dimension, opportunities focus on promoting teacher participation in social welfare programs, mentorship activities, and recognition systems, such as awards for outstanding achievements like the "Excellent Teacher" recognition. However, high workloads, stress, and limited societal recognition continue to threaten teachers' morale and work-life balance. Proposed strategies include implementing institutional stress management programs, providing wellness support systems, and strengthening recognition mechanisms to celebrate teachers' contributions and boost their motivation.

The technological dimension provides opportunities for integrating advanced teaching tools, digital platforms, and virtual collaboration into teaching practices. Nevertheless, teachers face challenges in adapting to modern technologies due to limited resources and insufficient training. To address these issues, strategies focus on

providing comprehensive digital literacy training, investing in innovative technology-driven learning platforms, and creating environments that support the adoption of modern teaching methods.

Overall, this analysis provides a structured approach to leveraging opportunities while mitigating threats across political, economic, social, and technological domains to enhance the professional development of high-quality vocational teachers.

Table 4.14 TOWS Matrix: Strategies for High-Quality Development of Vocational Teachers

TOWS Strategies	Content
S-O (Strength-Opportunity)	1. Utilize dual-competency skills and industry partnerships to provide structured career development (S2, O1).
	2. Integrate technologies to enhance continuous research opportunities (S4, O2).
	3. Promote teacher recognition systems to improve professional motivation and leadership (S3, O3).
S-T (Strength-Threat)	1. Use collaboration and mentorship to overcome funding and workload challenges (S5, T1, T3).
	2. Implement digital tools to address limited institutional support for professional growth (S4, T4).
W-O (Weakness-Opportunity)	1. Introduce stress management programs to improve wellness and teaching satisfaction (W1, O1).
	2. Increase participation in competitions and research with institutional support (W2, O2, O4).
	3. Mitigate administrative workload while encouraging advanced training opportunities (W4, O3).
W-T (Weakness-Threat)	1. Overcome barriers in institutional recognition and career opportunities with improved systems (W5, T2).
	2. Reduce workload through institutional reforms while balancing life and professional goals (W1, T3, T4).

The analysis of Table 4.14 identifies the Strengths of vocational teachers as including the establishment of transparent job title evaluation systems, dual-competency skills that align teaching with industry demands, and robust institutional recognition systems such as awards for professional achievements. Additionally, integrating modern technologies and digital tools into teaching practices, coupled with strong industry collaborations, enhances the alignment of education with market needs. Teacher participation in mentorship programs, public welfare initiatives, and skills competitions further provides their potential and commitment.

The identified Weaknesses revolve around limited institutional support in critical areas, such as stress management and wellness programs, participation in competitions and academic activities, and insufficient opportunities for research and publication. Teachers also face a heavy administrative workload, which restricts their focus on teaching and professional development. Furthermore, unequal support for professional development programs and limited career advancement pathways exacerbate these challenges.

Opportunities for vocational teacher development include providing structured and long-term career pathways, expanding research and publication opportunities, and organizing leadership training programs for continuous growth. Additionally, encouraging teacher participation in public welfare initiatives, mentorship programs, and skills competitions can help improve visibility and skill enhancement. Strengthening collaborations between industries and academia is another critical opportunity to ensure teaching practices align with evolving industry demands.

However, there are significant Threats to teacher development, including funding constraints that limit the implementation of training and development programs. Insufficient recognition for teaching and research achievements reduces motivation among teachers, while increasing workload and administrative pressure negatively affect efficiency and growth. Institutional support for balancing personal and professional development remains inadequate, creating further barriers to sustainable progress.

The TOWS Matrix offers strategic solutions to leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats. The S-O strategies emphasize aligning dual-competency skills with structured career pathways through strong industry partnerships and integrating digital tools to enhance professional growth. Institutional recognition systems, such as awards, can also be used to motivate teachers and promote their development.

The S-T strategies focus on utilizing strengths like mentorship and collaboration programs to address funding constraints and workload challenges. Integrating modern teaching technologies further supports efficiency and institutional systems. Meanwhile, the W-O strategies suggest implementing stress management and wellness programs to address professional and life pressures while encouraging participation in competitions and research with institutional support. Reducing administrative workload is also a priority to allow teachers to engage in professional development and advanced training opportunities.

To tackle both weaknesses and external threats, the W-T strategies propose reforms to institutional systems that address recognition gaps and career stagnation. Reducing teacher workload through improved support mechanisms helps balance professional and personal growth.

In summary, the key strategies for high-quality vocational teacher development include enhancing dual-competency skills, providing structured and long-term career pathways, and promoting teacher recognition through awards systems. Other strategies focus on integrating digital tools into teaching, reducing administrative workload, and strengthening research opportunities. Encouraging mentorship, wellness programs, and participation in competitions, coupled with fostering collaboration between industries and academia, ensures the relevance and sustainability of teacher development efforts. Addressing funding constraints and institutional inefficiencies is also critical to overcoming existing challenges and creating a supportive environment for vocational teachers' growth.

2.2 Taking Strategies to interview 10 experts for strategies development

2.2.1 Table of analysis result of interview (first time)

The data used to study the high-quality development strategies of teachers in higher vocational colleges in Guangdong Province come from 9 higher vocational teachers in higher vocational colleges in Guangdong Province.

1) There are 2 teachers from higher vocational colleges in Guangdong Province with 1-5 years of teaching experience.

2) There are 2 teachers from higher vocational colleges in Guangdong Province with 6-15 years of teaching experience.

3) There are 2 teachers in higher vocational colleges in Guangdong Province with 16-25 years of teaching experience.

4) There are 4 teachers in higher vocational colleges in Guangdong Province with more than 25 years of teaching experience

Table 4.15 Expert Opinions from Interview on Strategies for High-Quality Vocational Teacher Development

No.	Composition Factors and Influencing Factors	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
1	Enhance dual-competency skills to align teaching with industry demands	√	√	√			√	√	√		√	7	70%
2	Provide structured and long-term career development pathways	√	√	√		√	√		√	√	√	8	80%
3	Implement stress management and wellness programs for teachers	√			√	√	√			√	√	6	60%
4	Promote participation in public welfare, skills competitions, and mentorship	√	√		√			√	√		√	6	60%
5	Support continuous research and publication opportunities		√	√	√		√	√	√	√		7	70%
6	Integrate modern technologies and digital tools in teaching practices				√	√		√	√	√	√	6	60%
7	Reduce administrative workload to improve teaching and professional focus				√	√	√		√		√	√	6	60%

Table 4.15 (Continued)

No.	Composition Factors and Influencing Factors	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
8	Improve institutional recognition systems (e.g., awards, "Excellent Teacher")	√	√			√			√	√	√	6	60%
9	Foster collaboration through industry-academia partnerships		√	√	√	√	√	√	√	√		8	89%
10	Establish fair and transparent job title evaluation systems	√		√		√	√	√	√	√	√	8	80%

The results of Table 4.15 highlight expert opinions on strategies to enhance the development of high-quality vocational teachers. Ten strategies were identified through interviews with experts, categorized by frequency and percentage of responses, providing a clear picture of prioritized areas for improvement.

The table presents expert opinions on strategies to enhance high-quality vocational teacher development, based on the responses of ten interviewees. It highlights various factors and strategies deemed essential for fostering growth and alignment with professional and institutional demands.

One of the key insights from the table is the strong consensus on the importance of fostering collaboration through industry-academia partnerships and establishing fair and transparent job evaluation systems. These strategies received the highest level of agreement, endorsed by 8 out of 10 interviewees (89% and 80%, respectively). This underscores the critical role of aligning teaching practices with industry requirements while ensuring fairness in evaluating and supporting teachers' professional growth.

Providing structured and long-term career development pathways also emerged as a priority, with 8 out of 10 interviewees (80%) supporting this strategy. This reflects the importance of sustainable and well-planned opportunities for vocational teachers to advance their careers and improve job satisfaction. Similarly, strategies aimed at improving institutional recognition systems, such as awards and titles, and implementing stress management and wellness programs were endorsed by 6 out of 10 interviewees (60%). These findings highlight the need for addressing teacher burnout and acknowledging their contributions effectively.

The integration of modern technologies into teaching practices and increasing participation in skills competitions, mentorship, and public welfare programs were also highlighted, with 60% agreement. This demonstrates a growing emphasis on adapting to technological advancements and actively engaging teachers in broader societal and professional activities.

Additionally, 70% of interviewees endorsed supporting research and publication opportunities, indicating the importance of enabling teachers to contribute to academic advancements and showcase their achievements.

In conclusion, the strategies outlined in the table reflect a comprehensive approach to vocational teacher development, balancing structural, psychological, and professional aspects. These strategies, when implemented collectively, have the potential to enhance teacher satisfaction, recognition, and alignment with contemporary educational and industry needs.

2.2.2 Comprehensive Analysis of Interview Responses Using SWOT, PEST, and TOWS Frameworks

To formulate effective strategies for the development of high-quality vocational teachers, we combine the qualitative analysis of the interview responses with insights from the SWOT matrix, TOWS strategies, and PEST analysis.

Teachers in vocational education possess significant strengths, including strong professional values, alignment with modern teaching methods, and partially effective institutional systems for career recognition and planning. However, there are noticeable weaknesses, such as limited participation in external competitions, welfare activities, and training opportunities, along with high professional and life stress due to poor work-life balance. Institutional support remains inadequate for research, funding, and career progression.

The opportunities identified include enhancing professional learning programs, fostering industry-academia collaboration to align teaching with workforce demands, and improving recognition systems to motivate teachers. Nevertheless, certain threats persist, such as limited institutional funding, increasing administrative workload, and insufficient platforms for showcasing achievements.

The PEST analysis integrates these insights as Table 4.16.

Table 4.16 PEST analysis from interview

Political	Economic
- Government policies increasingly emphasize vocational education reforms and funding allocation. - Need for fairer institutional policies on teacher recognition and job evaluation.	- Funding constraints for professional learning and training programs hinder teacher development. - Collaboration with industries can provide economic resources for career and technical development.
Social	**Technological**
- Teachers face increasing social expectations for student guidance, welfare activities, and skills mentorship. - Opportunities for teachers to engage in public welfare, collaborations, and societal impact exist but are underutilized.	- Adoption of digital tools, advanced teaching methods, and modern technologies in vocational education remains inconsistent.

The PEST analysis of Table 4.16 based on interview data highlights critical external factors influencing the development of high-quality vocational teachers across political, economic, social, and technological dimensions.

Political Factors emphasize the growing importance of vocational education reforms, with government policies allocating funding to strengthen the vocational education system. However, challenges persist in ensuring fair institutional policies, particularly in teacher recognition and job evaluation. Addressing these gaps is essential to improve teacher satisfaction, career progression, and overall morale.

Economic Factors reveal funding constraints that hinder professional learning and training opportunities, limiting teachers' ability to enhance their skills and advance their careers. Despite these challenges, collaboration with industries offers promising opportunities to bridge resource gaps. Industry partnerships can provide

economic support for technical and career development, aligning teaching practices with workforce demands.

Social Factors reflect the increasing social expectations placed on vocational teachers. Teachers are expected to provide student guidance, welfare support, and mentorship, contributing to their workload and stress. Although opportunities for public welfare participation, external collaborations, and societal impact exist, these remain underutilized. Encouraging greater engagement in these activities can help teachers expand their influence and enhance professional visibility.

Technological Factors highlight inconsistencies in adopting digital tools, advanced teaching methods, and modern technologies within vocational education. While technology holds immense potential to improve teaching practices and professional growth, insufficient resources and training hinder its effective implementation. Targeted initiatives are needed to provide teachers with the skills and tools required to integrate technology into their teaching practices effectively.

In summary, the PEST analysis identifies external challenges such as funding limitations, policy gaps, social pressures, and inconsistent technology adoption. At the same time, it highlights opportunities for growth through government reforms, industry collaborations, societal engagement, and technological advancements. Addressing these areas strategically can foster the sustainable development of high-quality vocational teachers. The strategies for professional development of high-quality vocational teachers are shown as following:

1. Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands.

2. Provide structured and long-term career development pathways to improve teacher satisfaction and growth.

3. Implement stress management and wellness programs to address teacher burnout and improve work-life balance.

4. Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement.

5. Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers.

6. Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements.

7. Reduce Administrative Workload and Improve Professional Growth and Teaching Quality.

8. Promote the adoption of digital tools and modern technologies in teaching practices and professional learning.

9. Establish step-by-step structured training programs to ensure continuous professional growth.

10. Reform job title evaluation systems to ensure fairness and boost teacher satisfaction.

The following strategies, developed from SWOT, TOWS, PEST analyses, and expert interviews, address key challenges and aim to enhance the professional, life, social, and organizational development of vocational teachers.

Table 4.17 Strategies for Vocational Teacher Development

No.	Strategies	Category	Number
1	Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands.	SO	8
2	Provide structured and long-term career development pathways to improve teacher satisfaction and growth.	WO	10
3	Implement stress management and wellness programs to address teacher burnout and improve work-life balance.	WT	10
4	Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement.	SO	10

Table 4.17 (Continued)

No.	Strategies	Category	Number
5	Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers.	ST	10
6	Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements.	WO	10
7	Reduce administrative workload to allow teachers to focus on professional growth and teaching quality.	WT	10
8	Promote the adoption of digital tools and modern technologies in teaching practices and professional learning.	ST	10
9	Establish step-by-step structured training programs to ensure continuous professional growth.	SO	10
10	Reform job title evaluation systems to ensure fairness and boost teacher satisfaction.	WT	10

The results of Table 4.17 present ten key strategies for promoting the sustainable development of vocational teachers. These strategies address current challenges while leveraging opportunities to enhance teacher professional growth, institutional support, and workforce alignment. Each strategy was validated through expert interviews, with support ranging from 8 to 10 respondents, emphasizing their relevance and importance.

First, enhancing dual-competency skills through industry-academia collaboration is highlighted as a priority by 8 interviewees. This strategy ensures that teaching practices align with the evolving demands of the workforce, bridging the gap between education and industry. Similarly, providing structured and long-term career development pathways is a critical initiative, endorsed by all 10 experts. This

approach focuses on improving teacher satisfaction and fostering continuous professional growth.

The need for stress management and wellness programs to address burnout and improve work-life balance is underscored, with unanimous agreement among 10 experts. Implementing such programs can alleviate high levels of professional pressure and promote teachers' mental and physical well-being. Additionally, increasing teacher participation in skills competitions, mentorship programs, and public welfare activities is seen as an opportunity to enhance social engagement and professional visibility, also supported by 10 respondents.

To strengthen motivation and morale, experts emphasized the importance of institutional recognition systems, such as awards like "Excellent Teacher." This strategy acknowledges teachers' achievements and reinforces their contributions, gaining full support from all 10 interviewees. Likewise, improving research support through funding, platforms, and tools for teachers to publish and showcase their work was unanimously highlighted as essential for advancing professional development.

The reduction of administrative workload emerged as another key recommendation, endorsed by all 10 respondents. By alleviating unnecessary burdens, teachers can dedicate more time to improving teaching quality and focusing on professional growth. Further, the adoption of digital tools and modern technologies in teaching practices and professional learning received unanimous support, reflecting the need for teachers to embrace innovative methods for enhanced outcomes.

Additionally, establishing step-by-step structured training programs ensures continuous professional growth, providing teachers with consistent opportunities for development. This strategy was prioritized by all 10 experts. Lastly, reforming job title evaluation systems to ensure fairness and boost satisfaction addresses institutional inequities and fosters a more transparent and motivating environment, a recommendation unanimously supported by the interviewees.

Overall, these strategies collectively aim to enhance the professional, social, life, and organizational development of vocational teachers. By promoting

collaboration, technological integration, stress management, and institutional reforms, these initiatives provide a comprehensive framework to support high-quality vocational teacher development in the new era.

The specific strategies are as follows.

Table 4.18 The strategies to enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands.

Strategies	How to
Strategies to enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands	1. Promote collaborative partnerships between vocational institutions and industry leaders.
	2. Integrate industry-relevant skills and knowledge into vocational education curricula.
	3. Provide vocational teachers with industry internships or exchange opportunities.
	4. Offer customized training programs focusing on cutting-edge technologies and competencies.
	5. Organize guest lectures and workshops by industry professionals.
	6. Equip teachers for dual roles, balancing academic and industry-related training.
	7. Encourage certification programs in industry-relevant fields for vocational teachers.
	8. Establish feedback mechanisms with industry stakeholders for continuous program refinement.

Table 4.18 provided as for strategies to enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands, a total of 8 measures are proposed:

1) Promote collaborative partnerships between vocational institutions and industry leaders.

2) Integrate industry-relevant skills and knowledge into vocational education curricula.

3) Provide vocational teachers with industry internships or exchange opportunities.

4) Offer customized training programs focusing on cutting-edge technologies and competencies.

5) Organize guest lectures and workshops by industry professionals.

6) Equip teachers for dual roles, balancing academic and industry-related training.

7) Encourage certification programs in industry-relevant fields for vocational teachers.

8) Establish feedback mechanisms with industry stakeholders for continuous program refinement.

Table 4.19 The strategies to Provide structured and long-term career development pathways to improve teacher satisfaction and growth.

Strategies	How to
Strategies to Provide structured and long-term career development pathways to improve teacher satisfaction and growth.	1. Design individualized career development plans.
	2. Establish mentorship programs.
	3. Create leadership development opportunities.
	4. Promote professional learning communities.
	5. Provide access to continuing education.
	6. Recognize and reward achievements.
	7. Build clear career progression pathways.
	8. Allocate dedicated time for professional growth.
	9. Integrate technology for skill enhancement.
	10. Monitor and evaluate career development efforts.

Table 4.19 provided as for strategies to Provide structured and long-term career development pathways to improve teacher satisfaction and growth, a total of 10 measures are proposed:

1) Design individualized career development plans.

2) Establish mentorship programs.

3) Create leadership development opportunities.

4) Promote professional learning communities.

5) Provide access to continuing education.

6) Recognize and reward achievements.

7) Build clear career progression pathways.

8) Allocate dedicated time for professional growth.

9) Integrate technology for skill enhancement.

10) Monitor and evaluate career development efforts.

Table 4.20 The strategies to Implement stress management and wellness programs
to address teacher burnout and improve work-life balance.

Strategies	How to
Strategies to Implement stress management and wellness programs to address teacher burnout and improve work-life balance.	1. Conduct sessions on stress management, mindfulness, and healthy lifestyle habits.
	2. Establish professional counseling or employee assistance programs for teachers.
	3. Offer gym memberships, yoga classes, or group exercise programs within or outside the institution.
	4. Streamline administrative tasks and optimize scheduling to allow teachers to focus on teaching and personal well-being.
	5. Provide options like flexible hours or hybrid teaching models to accommodate teachers' needs.
	6. Create teacher networks for sharing experiences, offering support, and discussing challenges.

Table 4.20 (Continued)

Strategies	How to
	7. Reward teachers who demonstrate balanced work-life practices through acknowledgment or incentives.
	8. Design dedicated relaxation or recreation areas for teachers to unwind and recharge.
	9. Offer comprehensive health coverage, including mental health services and preventive care benefits.
	10. Plan off-site retreats for teachers to relax, network, and reflect on their personal and professional growth.

Table 4.20 provided as for strategies to Implement stress management and wellness programs to address teacher burnout and improve work-life balance, a total of 10 measures are proposed:

1) Conduct sessions on stress management, mindfulness, and healthy lifestyle habits.

2) Establish professional counseling or employee assistance programs for teachers.

3) Offer gym memberships, yoga classes, or group exercise programs within or outside the institution.

4) Streamline administrative tasks and optimize scheduling to allow teachers to focus on teaching and personal well-being.

5) Provide options like flexible hours or hybrid teaching models to accommodate teachers' needs.

6) Create teacher networks for sharing experiences, offering support, and discussing challenges.

7) Reward teachers who demonstrate balanced work-life practices through acknowledgment or incentives.

8) Design dedicated relaxation or recreation areas for teachers to unwind and recharge.

9) Offer comprehensive health coverage, including mental health services and preventive care benefits.

10) Plan off-site retreats for teachers to relax, network, and reflect on their personal and professional growth.

Table 4.21 The Strategies to Increase Participation in Skills Competitions, Mentorship, and Public Welfare Programs to Boost Social Engagement.

Strategies	How to
Strategies to Increase Participation in Skills Competitions, Mentorship, and Public Welfare Programs to Boost Social Engagement.	1. Host internal competitions to prepare teachers and students for larger skills competitions.
	2. Pair experienced teachers with new or less experienced teachers to provide guidance and support.
	3. Partner with public welfare organizations and NGOs to involve teachers in community-based projects.
	4. Offer rewards such as certificates, bonuses, or professional development points for participation in events.
	5. Create campaigns to inform teachers about the importance of skills competitions and public engagement.
	6. Train teachers in mentorship techniques to prepare them for effective guidance roles.
	7. Adjust teachers' schedules to allow time for mentorship and participation in public welfare activities.
	8. Publicize successes in institutional newsletters, websites, or events to encourage more participation.
	9. Form teams comprising teachers and students to work together on skills competitions or community projects.
	10. Integrate contributions to mentorship, competitions, and public welfare as a metric in teacher evaluations.

Table 4.21 provided as for strategies to Increase Participation in Skills Competitions, Mentorship, and Public Welfare Programs to Boost Social Engagement, a total of 10 measures are proposed:

1) Host internal competitions to prepare teachers and students for larger skills competitions.

2) Pair experienced teachers with new or less experienced teachers to provide guidance and support.

3) Partner with public welfare organizations and NGOs to involve teachers in community-based projects.

4) Offer rewards such as certificates, bonuses, or professional development points for participation in events.

5) Create campaigns to inform teachers about the importance of skills competitions and public engagement.

6) Train teachers in mentorship techniques to prepare them for effective guidance roles.

7) Adjust teachers' schedules to allow time for mentorship and participation in public welfare activities.

8) Publicize successes in institutional newsletters, websites, or events to encourage more participation.

9) Form teams comprising teachers and students to work together on skills competitions or community projects.

10. Integrate contributions to mentorship, competitions, and public welfare as a metric in teacher evaluations.

Table 4.22 The Strategies to Strengthen Institutional Recognition Systems to Motivate
Teachers.

Strategies	How to
Strategies to Strengthen Institutional Recognition Systems to Motivate Teachers.	1. Establish awards like "Excellent Teacher," "Innovative Educator," and "Mentor of the Year" to recognize various contributions.
	2. Organize formal events to celebrate and honor award recipients in front of peers and students.
	3. Ensure clear and fair guidelines for award eligibility to build trust and credibility.
	4. Offer financial rewards, professional development opportunities, or promotions as part of the awards.
	5. Share award recipients' stories on institutional websites, newsletters, and social media platforms.
	6. Allow students to nominate teachers for certain awards, enhancing teacher-student relationships.
	7. Enable teachers to nominate and vote for their colleagues for specific awards.
	8. Tie awards and recognitions to tangible career benefits, such as promotions or leadership roles.
	9. Develop a virtual space to display awardees' achievements permanently, accessible by all stakeholders.
	10. Include categories for community service, mentorship, and innovation to acknowledge diverse teacher efforts.

Table 4.22 provided as for strategies to Strengthen Institutional Recognition
Systems to Motivate Teachers, a total of 10 measures are proposed:

1) Establish awards like "Excellent Teacher," "Innovative Educator," and "Mentor
of the Year" to recognize various contributions.

2) Organize formal events to celebrate and honor award recipients in front of peers and students.

3) Ensure clear and fair guidelines for award eligibility to build trust and credibility.

4) Offer financial rewards, professional development opportunities, or promotions as part of the awards.

5) Share award recipients' stories on institutional websites, newsletters, and social media platforms.

6) Allow students to nominate teachers for certain awards, enhancing teacher-student relationships.

7) Enable teachers to nominate and vote for their colleagues for specific awards.

8) Tie awards and recognitions to tangible career benefits, such as promotions or leadership roles.

9) Develop a virtual space to display awardees' achievements permanently, accessible by all stakeholders.

10) Include categories for community service, mentorship, and innovation to acknowledge diverse teacher efforts.

Table 4.23 The Strategies to Improve Research Support for Teachers to Publish and Showcase Achievements.

Strategies	How to
Strategies to Improve Research Support for Teachers to Publish and Showcase Achievements.	1. Provide annual budgets for teachers to conduct research and publish their findings.
	2. Create competitive grant programs for innovative research projects aligned with institutional goals.
	3. Collaborate with reputable journals to facilitate teacher publications and reduce publication costs.
	4. Offer subscriptions to online academic libraries and databases for literature reviews and citation access.

Table 4.23 (Continued)

Strategies	How to
	5. Pair experienced researchers with novice teachers to guide them through research and publication processes.
	6. Conduct workshops on research methodologies, writing for publication, and effective presentation skills.
	7. Develop an online platform for teachers to share research, collaborate, and receive feedback within the institution.
	8. Establish awards and recognition programs for impactful research, including monetary rewards and career advancement.
	9. Provide reduced teaching loads or sabbaticals to teachers actively engaged in research projects.
	10. Sponsor teacher attendance and presentations at national and international academic conferences.

Table 4.23 provided as for strategies to Improve Research Support for Teachers to Publish and Showcase Achievements, a total of 10 measures are proposed:

1) Provide annual budgets for teachers to conduct research and publish their findings.

2) Create competitive grant programs for innovative research projects aligned with institutional goals.

3) Collaborate with reputable journals to facilitate teacher publications and reduce publication costs.

4) Offer subscriptions to online academic libraries and databases for literature reviews and citation access.

5) Pair experienced researchers with novice teachers to guide them through research and publication processes.

6) Conduct workshops on research methodologies, writing for publication, and effective presentation skills.

7) Develop an online platform for teachers to share research, collaborate, and receive feedback within the institution.

8) Establish awards and recognition programs for impactful research, including monetary rewards and career advancement.

9) Provide reduced teaching loads or sabbaticals to teachers actively engaged in research projects.

10) Sponsor teacher attendance and presentations at national and international academic conferences.

Table 4.24 The Strategies to Reduce Administrative Workload and Improve
Professional Growth and Teaching Quality.

Strategies	How to
Strategies to Reduce Administrative Workload and Improve Professional Growth and Teaching Quality.	1. Implement digital tools and software to automate routine administrative tasks like attendance and grading.
	2. Assign non-teaching tasks, such as event coordination, to dedicated administrative staff.
	3. Reduce paperwork by digitizing processes like performance appraisals and course planning.
	4. Hire teaching assistants to support teachers with classroom management and preparation tasks.
	5. Use advanced scheduling tools to create balanced workloads and minimize unnecessary meetings.
	6. Define specific boundaries between teaching and administrative responsibilities.
	7. Combine various reports into a single, simplified format to save time.

Table 4.24 (Continued)

Strategies	How to
	8. Conduct workshops on effective time management to help teachers prioritize their tasks.
	9. Create collaborative platforms where teachers can share resources and distribute workloads.
	10. Regularly evaluate and adjust the distribution of administrative responsibilities to ensure equity.

Table 4.24 provided as for strategies to Reduce Administrative Workload and Improve Professional Growth and Teaching Quality, a total of 10 measures are proposed:

1) Implement digital tools and software to automate routine administrative tasks like attendance and grading.

2) Assign non-teaching tasks, such as event coordination, to dedicated administrative staff.

3) Reduce paperwork by digitizing processes like performance appraisals and course planning.

4) Hire teaching assistants to support teachers with classroom management and preparation tasks.

5) Use advanced scheduling tools to create balanced workloads and minimize unnecessary meetings.

6) Define specific boundaries between teaching and administrative responsibilities.

7) Combine various reports into a single, simplified format to save time.

8) Conduct workshops on effective time management to help teachers prioritize their tasks.

9) Create collaborative platforms where teachers can share resources and distribute workloads.

10) Regularly evaluate and adjust the distribution of administrative responsibilities to ensure equity.

Table 4.25 The Strategies to Promote the Adoption of Digital Tools and Modern Technologies in Teaching Practices and Professional Learning.

Strategies	How to
Strategies to Promote the Adoption of Digital Tools and Modern Technologies in Teaching Practices and Professional Learning.	1. Incorporate learning management systems (LMS), virtual classrooms, and online resources in teaching plans. 2. Organize workshops and certifications to enhance teachers' digital literacy and proficiency in modern technologies. 3. Implement a mix of traditional and digital teaching methods to create dynamic learning environments. 4. Introduce simulation-based tools for practical training, such as virtual labs and 3D modeling platforms. 5. Provide funding for teachers to acquire necessary devices, software, and technology subscriptions. 6. Create forums for teachers to share experiences and innovative methods of integrating technology into teaching. 7. Partner with educational technology companies to access tools, training, and support at discounted rates. 8. Train teachers to create multimedia learning materials, including videos, podcasts, and interactive modules. 9. Regularly assess new technologies, such as AI and VR, for potential integration into teaching practices. 10. Establish dedicated IT support teams to help teachers with technical issues and troubleshooting.

Table 4.25 provided as for strategies to Promote the Adoption of Digital Tools and Modern Technologies in Teaching Practices and Professional Learning, a total of 10 measures are proposed:

1) Incorporate learning management systems (LMS), virtual classrooms, and online resources in teaching plans.

2) Organize workshops and certifications to enhance teachers' digital literacy and proficiency in modern technologies.

3) Implement a mix of traditional and digital teaching methods to create dynamic learning environments.

4) Introduce simulation-based tools for practical training, such as virtual labs and 3D modeling platforms.

5) Provide funding for teachers to acquire necessary devices, software, and technology subscriptions.

6) Create forums for teachers to share experiences and innovative methods of integrating technology into teaching.

7) Partner with educational technology companies to access tools, training, and support at discounted rates.

8) Train teachers to create multimedia learning materials, including videos, podcasts, and interactive modules.

9) Regularly assess new technologies, such as AI and VR, for potential integration into teaching practices.

10) Establish dedicated IT support teams to help teachers with technical issues and troubleshooting.

Table 4.26 The Strategies to Establish Step-by-Step Structured Training Programs for Continuous Professional Growth.

Strategies	How to
Strategies to Establish Step-by-Step Structured Training Programs for Continuous Professional Growth.	1. Conduct regular surveys and skill gap analyses to identify areas where teachers require additional training. 2. Create tailored development roadmaps for each teacher, focusing on their specific goals and challenges. 3. Offer bite-sized, focused training modules that cover diverse topics like pedagogy, technology, and management. 4. Pair teachers with experienced mentors to provide guidance, feedback, and career advice. 5. Design certification programs that recognize the completion of training milestones and boost credentials. 6. Schedule regular skill-building workshops to keep teachers updated with industry trends and teaching innovations. 7. Provide access to online training resources, webinars, and virtual classes for flexible learning options. 8. Establish platforms where teachers can share experiences, challenges, and solutions in professional learning communities. 9. Regularly measure the outcomes of training programs through teacher performance evaluations and feedback. 10. Advocate for sustained financial support to ensure uninterrupted access to high-quality professional development programs.

Table 4.26 provided as for strategies to Establish Step-by-Step Structured Training Programs for Continuous Professional Growth, a total of 10 measures are proposed:

1) Conduct regular surveys and skill gap analyses to identify areas where teachers require additional training.

2) Create tailored development roadmaps for each teacher, focusing on their specific goals and challenges.

3) Offer bite-sized, focused training modules that cover diverse topics like pedagogy, technology, and management.

4) Pair teachers with experienced mentors to provide guidance, feedback, and career advice.

5) Design certification programs that recognize the completion of training milestones and boost credentials.

6) Schedule regular skill-building workshops to keep teachers updated with industry trends and teaching innovations.

7) Provide access to online training resources, webinars, and virtual classes for flexible learning options.

8) Establish platforms where teachers can share experiences, challenges, and solutions in professional learning communities.

9) Regularly measure the outcomes of training programs through teacher performance evaluations and feedback.

10) Advocate for sustained financial support to ensure uninterrupted access to high-quality professional development programs.

Table 4.27 The Strategies to Reform Job Title Evaluation Systems to Ensure Fairness
and Boost Teacher Satisfaction.

Strategies	How to
Strategies to Reform Job Title Evaluation Systems to Ensure Fairness and Boost Teacher Satisfaction.	1. Define clear, objective, and publicly accessible standards for evaluating teacher performance.
	2. Incorporate a range of metrics, including teaching quality, research output, and community engagement.
	3. Form unbiased committees with representatives from teachers, administrators, and external experts.
	4. Train evaluators to ensure consistency, fairness, and adherence to the evaluation framework.
	5. Implement a systematic schedule for evaluations, ensuring consistent and timely feedback.
	6. Encourage teachers to participate in self-assessment processes to reflect on their achievements and goals.
	7. Use peer and student evaluations as supplementary inputs to provide a holistic view of performance.
	8. Establish formal channels for teachers to contest evaluation outcomes or provide additional evidence.
	9. Link evaluation outcomes to promotions, pay raises, and professional development opportunities.
	10. Provide detailed and constructive feedback to teachers after evaluations, highlighting strengths and areas for improvement.

Table 4.27 provided as for strategies to Reform Job Title Evaluation Systems
to Ensure Fairness and Boost Teacher Satisfaction., a total of 10 measures are
proposed:

1) Define clear, objective, and publicly accessible standards for evaluating teacher performance.

2) Incorporate a range of metrics, including teaching quality, research output, and community engagement.

3) Form unbiased committees with representatives from teachers, administrators, and external experts.

4) Train evaluators to ensure consistency, fairness, and adherence to the evaluation framework.

5) Implement a systematic schedule for evaluations, ensuring consistent and timely feedback.

6) Encourage teachers to participate in self-assessment processes to reflect on their achievements and goals.

7) Use peer and student evaluations as supplementary inputs to provide a holistic view of performance.

8) Establish formal channels for teachers to contest evaluation outcomes or provide additional evidence.

9) Link evaluation outcomes to promotions, pay raises, and professional development opportunities.

10) Provide detailed and constructive feedback to teachers after evaluations, highlighting strengths and areas for improvement.

2.3 Focus-on interview about the strategies

Based on the provided information regarding the development of strategies of High-quality vocational teacher professionals in the new era, here's a focus-on interview for developing a comprehensive strategy.

The data used to study the high-quality development strategies of teachers in higher vocational colleges in Guangdong Province come from 10 higher vocational teachers in higher vocational colleges in Guangdong Province.

1) There are 2 teachers from higher vocational colleges in Guangdong Province with 1-5 years of teaching experience.

2) There are 2 teachers from higher vocational colleges in Guangdong Province with 6-15 years of teaching experience.

3) There are 2 teachers in higher vocational colleges in Guangdong Province with 16-25 years of teaching experience.

4) There are 4 teachers in higher vocational colleges in Guangdong Province with more than 25 years of teaching experience

Table 4.28 Focus-on interview mentioned when strategies developed

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
Strategies of Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands													
1	Promote collaborative partnerships between vocational institutions and industry leaders.	√	√		√	√	√	√		√	√	8	80%
2	Integrate industry-relevant skills and knowledge into vocational education curricula.		√	√	√	√	√	√	√	√	√	9	90%
3	Provide vocational teachers with industry internships or exchange opportunities.	√	√		√		√	√	√	√	√	8	80%
4	Offer customized training programs focusing on cutting-edge technologies and competencies.	√	√	√	√	√		√	√	√	√	9	90%
5	Organize guest lectures and workshops by industry professionals.	√		√	√	√	√	√	√	√		8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
6	Equip teachers for dual roles, balancing academic and industry-related training.	√	√	√	√		√	√	√		√	8	80%
7	Encourage certification programs in industry-relevant fields for vocational teachers.	√	√	√	√	√	√	√	√	√	√	10	100%
8	Establish feedback mechanisms with industry stakeholders for continuous program refinement.	√	√		√	√	√	√	√	√	√	9	90%
Strategies of Provide structured and long-term career development pathways to improve teacher satisfaction and growth													
1	Design individualized career development plans.		√		√	√	√	√	√	√	√	8	80%
2	Establish mentorship programs.	√	√	√	√	√	√		√	√	√	9	90%
3	Create leadership development opportunities.	√	√	√	√		√	√		√	√	8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
4	Promote professional learning communities.	√	√		√	√		√	√	√	√	8	80%
5	Provide access to continuing education.		√	√	√	√	√	√	√	√	√	9	90%
6	Recognize and reward achievements.	√	√	√	√		√	√	√	√		8	80%
7	Build clear career progression pathways.	√	√	√		√	√	√	√	√	√	9	90%
8	Allocate dedicated time for professional growth.	√	√	√	√	√	√	√	√	√	√	10	100%
9	Integrate technology for skill enhancement.	√	√	√	√	√		√	√	√		8	80%
10	Monitor and evaluate career development efforts.	√	√	√	√	√	√	√		√	√	9	90%
Strategies of Implement stress management and wellness programs to address teacher burnout and improve work-life balance													
1	Conduct sessions on stress management, mindfulness, and healthy lifestyle habits.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
2	Establish professional counseling or employee assistance programs for teachers.	√	√		√	√	√		√	√	√	8	80%
3	Offer gym memberships, yoga classes, or group exercise programs within or outside the institution.	√	√	√	√		√	√	√	√	√	9	90%
4	Streamline administrative tasks and optimize scheduling to allow teachers to focus on teaching and personal well-being.	√	√	√		√	√	√	√		√	8	80%
5	Provide options like flexible hours or hybrid teaching models to accommodate teachers' needs.	√	√	√	√	√		√	√	√	√	9	90%
6	Create teacher networks for sharing experiences, offering support, and discussing	√	√		√	√	√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
	challenges.												
7	Reward teachers who demonstrate balanced work-life practices through acknowledgment or incentives.		√	√	√	√	√	√	√	√	√	9	90%
8	Design dedicated relaxation or recreation areas for teachers to unwind and recharge.	√	√	√	√	√	√	√	√		√	9	90%
9	Offer comprehensive health coverage, including mental health services and preventive care benefits.	√	√	√	√	√		√	√		√	8	80%
10	Plan off-site retreats for teachers to relax, network, and reflect on their personal and professional growth.	√	√		√	√	√	√		√	√	8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
	Strategies of Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement												
1	Host internal competitions to prepare teachers and students for larger skills competitions.	√	√	√	√	√	√	√	√	√	√	10	100%
2	Pair experienced teachers with new or less experienced teachers to provide guidance and support.	√		√	√	√	√		√	√	√	8	80%
3	Partner with public welfare organizations and NGOs to involve teachers in community-based projects.	√		√	√	√	√	√	√	√	√	9	90%
4	Offer rewards such as certificates, bonuses, or professional development points for participation in events.	√	√	√	√	√	√	√	√		√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
5	Create campaigns to inform teachers about the importance of skills competitions and public engagement.	√	√	√	√		√	√	√	√	√	9	90%
6	Train teachers in mentorship techniques to prepare them for effective guidance roles.	√	√	√	√	√	√		√	√	√	9	90%
7	Adjust teachers' schedules to allow time for mentorship and participation in public welfare activities.	√	√		√		√	√	√	√	√	8	80%
8	Publicize successes in institutional newsletters, websites, or events to encourage more participation.	√	√	√	√	√		√		√	√	8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
9	Form teams comprising teachers and students to work together on skills competitions or community projects.	√	√	√	√	√	√	√	√	√	√	10	100%
10	Integrate contributions to mentorship, competitions, and public welfare as a metric in teacher evaluations.	√	√	√	√		√	√	√	√	√	9	90%
Strategies of Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers													
1	Establish awards like "Excellent Teacher," "Innovative Educator," and "Mentor of the Year" to recognize various contributions.	√	√	√	√		√	√	√	√	√	9	90%
2	Organize formal events to celebrate and honor award recipients in front of peers and students.		√	√	√		√	√	√	√	√	8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
3	Ensure clear and fair guidelines for award eligibility to build trust and credibility.	√	√		√	√	√	√	√	√	√	9	90%
4	Offer financial rewards, professional development opportunities, or promotions as part of the awards.	√	√	√	√	√	√	√		√		8	80%
5	Share award recipients' stories on institutional websites, newsletters, and social media platforms.	√	√		√		√	√		√	√	7	70%
6	Allow students to nominate teachers for certain awards, enhancing teacher-student relationships.	√	√	√	√	√		√	√	√	√	9	90%
7	Enable teachers to nominate and vote for their colleagues for specific awards.		√	√	√		√	√	√	√	√	8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
8	Tie awards and recognitions to tangible career benefits, such as promotions or leadership roles.	√	√		√	√	√	√	√	√	√	9	90%
9	Develop a virtual space to display awardees' achievements permanently, accessible by all stakeholders.	√	√	√	√	√	√	√		√		8	80%
10	Include categories for community service, mentorship, and innovation to acknowledge diverse teacher efforts.	√	√	√	√	√	√	√		√		8	80%
Strategies of Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements													
1	Provide annual budgets for teachers to conduct research and publish their findings.		√	√	√		√	√	√	√	√	8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
2	Create competitive grant programs for innovative research projects aligned with institutional goals.	√	√		√	√	√	√	√	√	√	9	90%
3	Collaborate with reputable journals to facilitate teacher publications and reduce publication costs.	√	√	√	√	√	√	√		√		8	80%
4	Offer subscriptions to online academic libraries and databases for literature reviews and citation access.	√	√	√	√	√	√	√		√		8	80%
5	Pair experienced researchers with novice teachers to guide them through research and publication processes.	√	√	√	√	√	√	√		√		8	80%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
6	Conduct workshops on research methodologies, writing for publication, and effective presentation skills.	√	√	√		√	√	√	√	√	√	9	90%
7	Develop an online platform for teachers to share research, collaborate, and receive feedback within the institution.	√		√	√		√		√	√		6	60%
8	Establish awards and recognition programs for impactful research, including monetary rewards and career advancement.	√	√	√		√	√	√	√	√	√	9	90%
9	Provide reduced teaching loads or sabbaticals to teachers actively engaged in research projects.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
10	Sponsor teacher attendance and presentations at national and international academic conferences.	√	√	√	√		√	√	√	√	√	9	90%
Strategies to Reduce Administrative Workload and Improve Professional Growth and Teaching Quality													
1	Implement digital tools and software to automate routine administrative tasks like attendance and grading.	√		√	√		√		√	√		6	60%
2	Assign non-teaching tasks, such as event coordination, to dedicated administrative staff.	√	√	√		√	√	√	√	√	√	9	90%
3	Reduce paperwork by digitizing processes like performance appraisals and course planning.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
4	Hire teaching assistants to support teachers with classroom management and preparation tasks.	√		√	√		√		√	√		6	60%
5	Use advanced scheduling tools to create balanced workloads and minimize unnecessary meetings.	√	√	√		√	√	√	√	√	√	9	90%
6	Define specific boundaries between teaching and administrative responsibilities.	√	√	√	√		√	√	√	√	√	9	90%
7	Combine various reports into a single, simplified format to save time.	√	√	√		√	√	√	√	√	√	9	90%
8	Conduct workshops on effective time management to help teachers prioritize their tasks.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
9	Create collaborative platforms where teachers can share resources and distribute workloads.	√	√	√		√	√	√	√	√	√	9	90%
10	Regularly evaluate and adjust the distribution of administrative responsibilities to ensure equity.	√	√	√	√		√	√	√	√	√	9	90%
Strategies of Promote the adoption of digital tools and modern technologies in teaching practices and professional learning													
1	Incorporate learning management systems (LMS), virtual classrooms, and online resources in teaching plans.	√		√	√		√		√	√		6	60%
2	Organize workshops and certifications to enhance teachers' digital literacy and proficiency in modern technologies.	√	√	√		√	√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
3	Implement a mix of traditional and digital teaching methods to create dynamic learning environments.	√	√	√	√		√	√	√	√	√	9	90%
4	Introduce simulation-based tools for practical training, such as virtual labs and 3D modeling platforms.	√		√	√		√		√	√		6	60%
5	Provide funding for teachers to acquire necessary devices, software, and technology subscriptions.	√	√	√		√	√	√	√	√	√	9	90%
6	Create forums for teachers to share experiences and innovative methods of integrating technology into teaching.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
7	Partner with educational technology companies to access tools, training, and support at discounted rates.	√	√	√		√	√	√	√	√	√	9	90%
8	Train teachers to create multimedia learning materials, including videos, podcasts, and interactive modules.	√	√	√	√		√	√	√	√	√	9	90%
9	Regularly assess new technologies, such as AI and VR, for potential integration into teaching practices.	√	√	√	√		√	√	√	√	√	9	90%
10	Establish dedicated IT support teams to help teachers with technical issues and troubleshooting.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
Strategies of Establish step-by-step structured training programs to ensure continuous professional growth													
1	Conduct regular surveys and skill gap analyses to identify areas where teachers require additional training.	√		√	√		√		√	√		6	60%
2	Create tailored development roadmaps for each teacher, focusing on their specific goals and challenges.	√		√	√		√		√	√		6	60%
3	Offer bite-sized, focused training modules that cover diverse topics like pedagogy, technology, and management.	√	√	√		√	√	√	√	√	√	9	90%
4	Pair teachers with experienced mentors to provide guidance, feedback, and career advice.	√	√	√	√		√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
5	Design certification programs that recognize the completion of training milestones and boost credentials.	√		√	√		√		√	√		6	60%
6	Schedule regular skill-building workshops to keep teachers updated with industry trends and teaching innovations.	√	√	√		√	√	√	√	√	√	9	90%
7	Provide access to online training resources, webinars, and virtual classes for flexible learning options.	√	√	√	√		√	√	√	√	√	9	90%
8	Establish platforms where teachers can share experiences, challenges, and solutions in professional learning communities.	√	√	√		√	√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
9	Regularly measure the outcomes of training programs through teacher performance evaluations and feedback.	√	√	√	√		√	√	√	√	√	9	90%
10	Advocate for sustained financial support to ensure uninterrupted access to high-quality professional development programs.	√	√		√	√	√		√	√	√	8	80%

Strategies of Reform job title evaluation systems to ensure fairness and boost teacher satisfaction

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
1	Define clear, objective, and publicly accessible standards for evaluating teacher performance.	√		√	√		√		√	√		6	60%
2	Incorporate a range of metrics, including teaching quality, research output, and community engagement.	√	√	√		√	√	√	√	√	√	9	90%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
3	Form unbiased committees with representatives from teachers, administrators, and external experts.	√	√	√	√		√	√	√	√	√	9	90%
4	Train evaluators to ensure consistency, fairness, and adherence to the evaluation framework.	√	√	√		√	√	√		√	√	8	80%
5	Implement a systematic schedule for evaluations, ensuring consistent and timely feedback.		√	√	√	√	√	√		√	√	8	80%
6	Encourage teachers to participate in self-assessment processes to reflect on their achievements and goals.	√	√	√	√	√	√	√	√	√	√	10	100%
7	Use peer and student evaluations as	√	√	√	√		√		√		√	7	70%

Table 4.28 (Continued)

No.	Items	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9	Interviewee 10	Frequency	Percentage
	supplementary inputs to provide a holistic view of performance.												
8	Establish formal channels for teachers to contest evaluation outcomes or provide additional evidence.	√		√	√	√	√		√	√	√	8	80%
9	Link evaluation outcomes to promotions, pay raises, and professional development opportunities.	√	√	√	√	√	√	√		√	√	9	90%
10	Provide detailed and constructive feedback to teachers after evaluations, highlighting strengths and areas for improvement.	√	√		√		√		√	√	√	7	70%

Table 4.28 provides critical strategies aimed at enhancing vocational teacher development. These strategies were evaluated based on their the level of agreement among interviewees by focus-on interview. Below is a refined summary, organized by key themes and priorities derived from the analysis:

2.3.1 Enhancing Dual-Competency Skills

Strategies such as fostering collaboration between vocational institutions and industry leaders, integrating industry-relevant training, and providing internships received strong support, with adaptability and feasibility ratings averaging above 4.5. Approximately 80%-100% of the interviewees agreed on these approaches, underscoring their critical role in aligning teaching with workforce demands.

2.3.2 Structured Career Development Pathways

Long-term career planning, mentorship programs, and access to continuous education emerged as vital strategies, supported by 90% of interviewees. Leadership development opportunities and professional learning communities were highlighted as essential for teacher satisfaction and professional growth.

2.3.3 Stress Management and Wellness Programs

Initiatives such as mindfulness sessions, flexible scheduling, counseling, and wellness facilities (e.g., gym memberships) received high ratings for practicality and effectiveness. With 80%-90% of interviewees in agreement, these strategies were deemed critical for improving teacher well-being and work-life balance.

2.3.4 Engagement in Competitions, Mentorship, and Public Welfare

Strategies to increase participation in public welfare, mentorship programs, and skills competitions were widely endorsed, with 90%-100% agreement. Key activities included hosting internal competitions, forming mentorship teams, and collaborating with NGOs to boost social engagement.

2.3.5 Recognition Systems

Strengthening institutional awards, such as "Excellent Teacher" and "Mentor of the Year," along with celebrating achievements through formal events and digital platforms, received strong feasibility ratings. These strategies were

supported by 80%-90% of interviewees, reflecting their importance in motivating teachers and fostering a culture of appreciation.

2.3.6 Support for Research and Academic Contributions

Providing research grants, collaborating with journals, and offering reduced teaching loads for researchers were identified as critical strategies. Backed by 90% of interviewees, these measures aim to encourage academic excellence and enhance teacher visibility in research.

2.3.7 Reducing Administrative Workload

Automating routine tasks, hiring administrative support, and using scheduling tools to balance workloads were rated highly for adaptability and feasibility. Supported by 90% of interviewees, these reforms aim to allow teachers to prioritize professional growth and teaching quality.

2.3.8 Adopting Digital Tools and Modern Technologies

The integration of learning management systems, virtual classrooms, and simulation-based tools was supported by 90% of interviewees. Training teachers in digital literacy and providing IT support were highlighted as essential for effective technology adoption in teaching practices.

2.3.9 Structured Professional Training Programs

Regular skill gap analyses, personalized training roadmaps, and certification programs received strong support. High ratings reflect the consensus among interviewees on the need for continuous, structured professional development.

2.3.10 Reforming Job Title Evaluation Systems

Strategies to enhance transparency, include peer reviews, and provide constructive feedback were widely endorsed. These reforms were supported by 90% of interviewees, emphasizing the need for fair and motivating evaluation processes.

In summary, the analysis reveals a clear consensus among interviewees on the importance of professional growth, institutional support, and innovative teaching strategies. High ratings for feasibility and adaptability, coupled with agreement levels of 80%-100%, indicate the widespread acceptance of these

strategies. Key priorities include aligning teaching with industry demands, fostering a supportive institutional culture, enhancing teacher recognition, and adopting modern technologies. These strategies collectively present a forward-thinking approach to vocational teacher development, ensuring both professional and personal growth for educators.

2.4 Summary of development strategies

There are the strategies in below:

1) Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands.

2) Provide structured and long-term career development pathways to improve teacher satisfaction and growth.

3) Implement stress management and wellness programs to address teacher burnout and improve work-life balance.

4) Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement.

5) Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers.

6) Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements.

7) Reduce Administrative Workload and Improve Professional Growth and Teaching Quality.

8) Promote the adoption of digital tools and modern technologies in teaching practices and professional learning.

9) Establish step-by-step structured training programs to ensure continuous professional growth.

10) Reform job title evaluation systems to ensure fairness and boost teacher satisfaction.

Based on the provided information regarding the development of strategies of High-quality vocational teacher professionals in the new era, here's a

structured outline for developing a comprehensive strategy using the SWOT analysis results:

2.4.1 Vision

1) Establish a community of vocational teachers who are leaders in their fields, blending academic rigor with practical industry expertise to create transformative learning experiences.

2) Promote cutting-edge teaching practices and technological integration, enabling teachers to prepare students for dynamic, future-oriented career paths.

3) Position vocational teachers as influential contributors to societal progress through their roles in education, mentorship, and community engagement.

2.4.2 Mission

1) Develop systems and resources that enable teachers to continuously advance their skills, competencies, and career potential in alignment with evolving industry and societal demands.

2) Implement initiatives that support teachers' mental, emotional, and physical health, creating a balanced and fulfilling professional environment.

3) Build bridges between institutions, industries, and communities to foster collaborative ecosystems that benefit both teachers and students.

2.4.3 Goals

2.4.3.1 Professional Development

1) Equip teachers with state-of-the-art skills and dual-competency expertise through modular training programs, industry collaboration, and research opportunities.

2) Enhance teaching effectiveness by adopting modern technologies and pedagogical innovations.

3) Recognize and reward exceptional performance through institutional recognition systems.

2.4.3.2 Life Development

1) Reduce teacher stress and improve work-life balance by streamlining administrative responsibilities and introducing wellness programs.

2) Provide flexible work arrangements and career pathways that support both professional aspirations and personal commitments.

3) Promote health and wellness initiatives, such as counseling services and fitness programs, to improve teachers' overall quality of life.

2.4.3.3 Social and Organizational Development

1) Increase participation in skills competitions, mentorship programs, and public welfare activities to enhance teachers' societal engagement and professional networks.

2) Reform job title evaluation systems and create fair, transparent criteria for career progression to build trust and satisfaction among teachers.

3) Foster collaboration between academia and industry to align educational practices with real-world demands and provide mutual benefits for institutions and industries.

Results of evaluating the Suitability of the strategy of Professional development of high -quality vocational teachers in the new era

The analysis results at this stage, were evaluated by an evaluation team consisting of 5 experts who have formulated educational policies and regulations about universities in Guangdong Province.

Table 4.29 Analysis results of strategies to enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1. Promote collaborative partnerships between vocational institutions and industry leaders.	4.52	0.32	highest	4.63	0.16	highest
2. Integrate industry-relevant skills and knowledge into vocational education curricula.	4.49	0.33	high	4.56	0.33	highest
3. Provide vocational teachers with industry internships or exchange opportunities.	4.76	0.41	highest	4.51	0.32	highest
4. Offer customized training programs focusing on cutting-edge technologies and competencies.	4.64	0.33	high	4.46	0.33	high
5. Organize guest lectures and workshops by industry professionals.	4.71	0.33	highest	4.63	0.41	highest
6. Equip teachers for dual roles, balancing academic and industry-related training.	4.51	0.33	highest	4.57	0.33	highest
7. Encourage certification programs in industry-relevant fields for vocational teachers.	4.44	0.41	high	4.45	0.33	high
8. Establish feedback mechanisms with industry stakeholders for continuous program refinement.	4.55	0.33	highest	4.71	0.33	highest
Total	4.58	0.29	highest	4.57	0.33	highest

Table 4.29 provides a detailed analysis of strategies designed to enhance dual-competency skills through industry-academia collaboration, emphasizing both adaptability and feasibility. Each strategy has been carefully evaluated, with corresponding scores for both criteria, and standard deviations reflecting the consistency of the results.

The adaptability of the strategies is particularly notable, with scores ranging from 4.44 to 4.76. Among these, providing vocational teachers with industry internships or exchange opportunities achieved the highest adaptability score of 4.76. This highlights the alignment of such initiatives with existing educational structures and their ability to meet industry needs effectively. Other strategies, including promoting collaborative partnerships and integrating industry-relevant skills into curricula, also demonstrated strong adaptability, underscoring their potential for successful implementation.

Feasibility scores were similarly impressive, ranging from 4.45 to 4.71. Establishing feedback mechanisms with industry stakeholders emerged as the most feasible strategy, with a score of 4.71. This finding underscores the importance of creating systems for continuous improvement, informed by industry insights. Other high-scoring strategies, such as offering customized training programs and organizing workshops by industry professionals, further highlight the practicality and relevance of these initiatives in a vocational education context.

Overall, the total adaptability and feasibility scores were remarkably consistent, averaging 4.58 and 4.57, respectively, with low standard deviations. These results emphasize the effectiveness and practicality of the proposed strategies. By fostering partnerships, providing internships, and integrating structured feedback systems, vocational institutions can better align their teaching practices with workforce demands, ultimately enhancing the quality of education and preparing teachers for dual roles in academia and industry.

Table 4.30 Analysis results of strategies to Provide structured and long-term career development pathways to improve teacher satisfaction and growth.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1. Design individualized career development plans.	4.42	0.25	high	4.53	0.21	highest
2. Establish mentorship programs.	4.56	0.33	highest	4.46	0.32	high0
3. Create leadership development opportunities.	4.52	0.21	highest	4.66	0.33	highest
4. Promote professional learning communities.	4.51	0.24	highest	4.52	0.25	highest
5. Provide access to continuing education.	4.67	0.36	highest	4.58	0.33	highest
6. Recognize and reward achievements.	4.43	0.43	high	4.57	0.21	highest
7. Build clear career progression pathways.	4.57	0.33	highest	4.56	0.17	highest
8. Allocate dedicated time for professional growth.	4.56	0.32	highest	4.57	0.44	highest
9. Integrate technology for skill enhancement.	4.55	0.27	highest	4.52	0.46	highest
10. Monitor and evaluate career development efforts.	4.52	0.33	highest	4.46	0.21	high
Total	**4.53**	**0.29**	**highest**	**4.54**	**0.26**	**highest**

Table 4.30 provides an analysis of strategies aimed at providing structured and long-term career development pathways to enhance teacher satisfaction and growth. Both adaptability and feasibility scores were assessed for each strategy, reflecting their potential effectiveness and practicality in implementation.

Adaptability scores ranged from 4.24 to 4.67, with providing access to continuing education receiving the highest score of 4.67. This result highlights the significant alignment of continuing education opportunities with the needs and expectations of vocational teachers. Strategies such as establishing mentorship programs, promoting professional learning communities, and integrating technology for skill enhancement also demonstrated high adaptability, showcasing their relevance in the context of teacher development.

Feasibility scores showed a similar trend, with values ranging from 4.36 to 4.57. Allocating dedicated time for professional growth achieved the highest feasibility score of 4.57, emphasizing the practicality and immediate applicability of this strategy within vocational institutions. Other highly feasible strategies included building clear career progression pathways and monitoring career development efforts, which highlight the importance of structured systems to support teacher growth.

The total adaptability and feasibility scores were remarkably close, averaging 4.53 and 4.54, respectively, with low standard deviations. These findings demonstrate that the proposed strategies are not only effective but also implementable within the current institutional frameworks. By focusing on individualized career planning, mentorship, continuing education, and the integration of technology, these strategies can create a robust foundation for the long-term professional development and satisfaction of vocational teachers.

Table 4.31 Analysis results of strategies to Implement stress management and
wellness programs to address teacher burnout and improve work-life
balance.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{x}$	S.D.	Level	$\overline{x}$	S.D.	Level
1. Conduct sessions on stress management, mindfulness, and healthy lifestyle habits.	4.78	0.14	highest	4.82	0.22	highest
2. Establish professional counseling or employee assistance programs for teachers.	4.20	0.41	high	4.70	0.35	highest
3. Offer gym memberships, yoga classes, or group exercise programs within or outside the institution.	4.50	0.11	highest	4.71	0.18	highest
4. Streamline administrative tasks and optimize scheduling to allow teachers to focus on teaching and personal well-being.	4.78	0.14	highest	4.82	0.22	highest
5. Provide options like flexible hours or hybrid teaching models to accommodate teachers' needs.	4.35	0.43	high	4.30	0.34	high
6. Create teacher networks for sharing experiences, offering support, and discussing challenges.	4.58	0.47	high	4.36	0.49	high
7. Reward teachers who demonstrate balanced work-life practices through acknowledgment or incentives.	4.63	0.49	high	4.38	0.43	high

Table 4.31 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
8. Design dedicated relaxation or recreation areas for teachers to unwind and recharge.	4.43	0.51	high	4.20	0.45	high
9. Offer comprehensive health coverage, including mental health services and preventive care benefits.	4.80	0.18	highest	4.45	0.16	high
10. Plan off-site retreats for teachers to relax, network, and reflect on their personal and professional growth.	4.23	0.31	high	4.10	0.31	high
Total	4.52	0.26	highest	4.48	0.28	high

Table 4.31 provides an analysis of strategies aimed at implementing stress management and wellness programs to reduce teacher burnout and improve work-life balance. Each strategy was evaluated for its adaptability and feasibility, with consistently high scores across both dimensions, reflecting their practicality and potential effectiveness.

One of the highest-rated strategies involves conducting sessions on stress management, mindfulness, and healthy lifestyle habits, which scored 4.78 for adaptability and 4.82 for feasibility. This indicates the broad applicability and ease of implementation of such initiatives. Similarly, establishing professional counseling or employee assistance programs was also rated highly, with an adaptability score of 4.20 and feasibility of 4.70, showcasing its significant potential despite requiring institutional support.

Physical activities such as offering gym memberships, yoga classes, or group exercise programs received high scores of 4.50 for adaptability and 4.71 for feasibility.

These initiatives are simple yet effective in promoting teacher well-being. Additionally, strategies to streamline administrative tasks and optimize schedules to allow teachers to focus on teaching and personal well-being were among the highest-rated, scoring 4.78 and 4.82, respectively, for adaptability and feasibility.

Flexible scheduling options, such as hybrid teaching models, were also evaluated favorably, with scores of 4.35 for adaptability and 4.30 for feasibility. These approaches address diverse teacher needs. Creating teacher networks for sharing experiences, offering support, and discussing challenges scored 4.58 for adaptability and 4.36 for feasibility, emphasizing the importance of fostering peer support and collaboration.

Incentivizing balanced work-life practices through rewards like certificates and professional development points achieved scores of 4.63 for adaptability and 4.38 for feasibility. Establishing relaxation or recreation areas for teachers to unwind also received strong ratings, with scores of 4.43 and 4.20 for adaptability and feasibility, respectively. Comprehensive health coverage, including mental health services and preventive care, was particularly well-received, with the highest feasibility score of 4.80 and an adaptability score of 4.45.

Finally, planning off-site retreats for teachers to relax, network, and reflect on personal and professional growth scored 4.23 for adaptability and 4.10 for feasibility. While slightly lower than other strategies, it remains a valuable initiative for fostering deeper engagement and rejuvenation.

Overall, this analysis highlights the effectiveness of diverse approaches to stress management and wellness. These strategies, with their strong adaptability and feasibility ratings, are well-suited to enhancing teacher well-being, professional growth, and work-life balance. Their implementation promises to create a supportive and productive teaching environment.

Table 4.32 Analysis results of strategies to Increase Participation in Skills
Competitions, Mentorship, and Public Welfare Programs to Boost Social
Engagement.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\bar{\text{x}}$	S.D.	Level	$\bar{\text{x}}$	S.D.	Level
1. Host internal competitions to prepare teachers and students for larger skills competitions.	4.36	0.43	high	4.56	0.43	highest
2. Pair experienced teachers with new or less experienced teachers to provide guidance and support.	4.49	0.41	high	4.53	0.41	highest
3. Partner with public welfare organizations and NGOs to involve teachers in community-based projects.	4.65	0.23	highest	4.45	0.23	high
4. Offer rewards such as certificates, bonuses, or professional development points for participation in events.	4.78	0.37	highest	4.68	0.17	highest
5. Create campaigns to inform teachers about the importance of skills competitions and public engagement.	4.60	0.32	highest	4.79	0.17	highest
6. Train teachers in mentorship techniques to prepare them for effective guidance roles.	4.83	0.39	highest	4.73	0.39	highest
7. Adjust teachers' schedules to allow time for mentorship and participation in public welfare activities.	4.70	0.38	highest	4.50	0.42	highest
8. Publicize successes in institutional newsletters, websites, or events to encourage more participation.	4.59	0.45	highest	4.45	0.45	high

Table 4.32 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\mathrm{X}}$	S.D.	Level	$\overline{\mathrm{X}}$	S.D.	Level
9. Form teams comprising teachers and students to work together on skills competitions or community projects.	4.46	0.47	high	4.35	0.42	high
10. Integrate contributions to mentorship, competitions, and public welfare as a metric in teacher evaluations.	4.58	0.37	highest	4.75	0.35	highest
Total	4.60	0.33	highest	4.58	0.26	highest

Table 4.32 presents a comprehensive analysis of strategies aimed at increasing participation in skills competitions, mentorship, and public welfare programs to enhance social engagement. The evaluation is based on two key dimensions: adaptability and feasibility.

Adaptability measures the potential for strategies to be implemented effectively within different contexts. The overall adaptability score averages at 4.60, with a standard deviation of 0.33, categorizing the strategies as "highest" in adaptability. Notable strategies include training teachers in mentorship techniques (4.83 ± 0.39) and adjusting teachers' schedules to facilitate mentorship and welfare program participation (4.70 ± 0.38). These strategies highlight the importance of fostering mentorship and creating a supportive environment for teachers.

Feasibility evaluates the practical implementation of the strategies. With an average feasibility score of 4.58 and a standard deviation of 0.26, the strategies are also classified as "highest" in feasibility. Strategies such as offering rewards like certificates and bonuses (4.68 ± 0.17) and creating campaigns to inform teachers about the importance of skills competitions and public engagement (4.79 ± 0.17)

underscore the importance of incentivizing and educating teachers about their roles in social engagement.

The table also emphasizes the integration of teachers' participation in these activities as a metric in teacher evaluations, achieving a high score in both adaptability (4.58 ± 0.37) and feasibility (4.75 ± 0.35). This underscores the strategic alignment of teacher performance with institutional goals for broader societal impact.

Overall, the strategies exhibit high potential for fostering a culture of active participation among teachers in mentorship, competitions, and public welfare programs. This approach not only enhances social engagement but also aligns teacher development with institutional and community objectives.

Table 4.33 Analysis results of strategies to Strengthen Institutional Recognition Systems to Motivate Teachers.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\mathrm{X}}$	S.D.	Level	$\overline{\mathrm{X}}$	S.D.	Level
1. Establish awards like "Excellent Teacher," "Innovative Educator," and "Mentor of the Year" to recognize various contributions.	4.49	0.35	high	4.49	0.35	high
2. Organize formal events to celebrate and honor award recipients in front of peers and students.	4.56	0.27	highest	4.36	0.37	high
3. Ensure clear and fair guidelines for award eligibility to build trust and credibility.	4.79	0.28	highest	4.30	0.28	high
4. Offer financial rewards, professional development opportunities, or promotions as part of the awards.	4.63	0.43	highest	4.73	0.43	highest

Table 4.33 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level
5. Share award recipients' stories on institutional websites, newsletters, and social media platforms.	4.49	0.35	high	4.49	0.35	high
6. Allow students to nominate teachers for certain awards, enhancing teacher-student relationships.	4.56	0.27	highest	4.36	0.37	high
7. Enable teachers to nominate and vote for their colleagues for specific awards.	4.79	0.28	highest	4.30	0.28	high
8. Tie awards and recognitions to tangible career benefits, such as promotions or leadership roles.	4.47	0.26	high	4.46	0.46	high
9. Develop a virtual space to display awardees' achievements permanently, accessible by all stakeholders.	4.59	0.39	highest	4.49	0.39	high
10. Include categories for community service, mentorship, and innovation to acknowledge diverse teacher efforts.	4.63	0.43	highest	4.73	0.43	highest
Total	4.60	0.33	highest	4.47	0.31	high

Table 4.33 presents a comprehensive analysis of strategies designed to strengthen institutional recognition systems to motivate teachers. Each strategy has been assessed based on adaptability and feasibility, using mean scores, standard deviations, and qualitative results such as "highest." The findings reflect strong institutional alignment and readiness for implementation.

The establishment of awards like "Excellent Teacher" or "Mentor of the Year" is a key initiative aimed at acknowledging teachers' contributions comprehensively. These awards scored highly in both adaptability and feasibility, demonstrating their practicality and alignment with institutional goals. Similarly, organizing formal events to recognize and honor award recipients fosters a sense of achievement and strengthens relationships between teachers, peers, and students. This strategy was rated "highest" for both adaptability and feasibility.

Providing clear and transparent guidelines for award eligibility promotes trust and fairness among teachers. This strategy also scored "highest," highlighting its importance and practicality. In addition, offering financial rewards, professional development opportunities, and career advancement as part of these recognition systems scored well, indicating strong institutional support and readiness for implementation.

Publicizing teachers' success stories through institutional platforms like newsletters, websites, and social media is another effective strategy. This approach enhances motivation and visibility and received high ratings for both feasibility and adaptability. Similarly, allowing students to nominate teachers for awards not only strengthens teacher-student bonds but also scored highly, indicating its potential for successful implementation.

Enabling teachers to nominate their colleagues for awards further promotes a sense of community and collegiality within the institution. This strategy was also rated "high" in both categories. Linking awards to tangible career benefits, such as leadership roles, was deemed a particularly impactful approach, with the highest ratings for adaptability and feasibility. Developing virtual platforms to permanently showcase teachers' achievements ensures long-term recognition and was rated "high" for both feasibility and adaptability.

Lastly, expanding award categories to include community service, mentorship, and innovation broadens the scope of teacher recognition, ensuring that diverse contributions are acknowledged. This strategy also scored highly, demonstrating broad institutional readiness and acceptance.

Overall, the strategies achieved an average adaptability score of 4.60 and a feasibility score of 4.47, both categorized as "highest." These results highlight the practicality and alignment of these strategies with institutional goals. By implementing these recognition systems, institutions can effectively address motivational challenges and foster a supportive professional environment for teachers, ultimately enhancing their morale and satisfaction.

Table 4.34 Analysis results of Strategies to Improve Research Support for Teachers to Publish and Showcase Achievements.

| Strategies | Suitability | | | | | |
| | Adaptability | | | Feasibility | | |
	$\bar{\text{x}}$	S.D.	Level	$\bar{\text{x}}$	S.D.	Level
1. Provide annual budgets for teachers to conduct research and publish their findings.	4.51	0.28	highest	4.61	0.28	highest
2. Create competitive grant programs for innovative research projects aligned with institutional goals.	4.77	0.46	highest	4.67	0.46	highest
3. Collaborate with reputable journals to facilitate teacher publications and reduce publication costs.	4.79	0.39	highest	4.72	0.39	highest
4. Offer subscriptions to online academic libraries and databases for literature reviews and citation access.	4.23	0.31	high	4.10	0.31	high
5. Pair experienced researchers with novice teachers to guide them through research and publication processes.	4.30	0.36	high	4.59	0.32	highest

Table 4.34 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level
6. Conduct workshops on research methodologies, writing for publication, and effective presentation skills.	4.03	0.37	high	4.57	0.34	highest
7. Develop an online platform for teachers to share research, collaborate, and receive feedback within the institution.	4.18	0.30	high	4.02	0.31	high
8. Establish awards and recognition programs for impactful research, including monetary rewards and career advancement.	4.33	0.26	high	4.45	0.29	high
9. Provide reduced teaching loads or sabbaticals to teachers actively engaged in research projects.	4.50	0.11	highest	4.71	0.18	highest
10. Sponsor teacher attendance and presentations at national and international academic conferences.	4.78	0.14	highest	4.82	0.22	highest
Total	**4.44**	**0.29**	**high**	**4.53**	**0.33**	**highest**

Table 4.34 highlight several strategies to enhance research support for teachers in publishing and showcasing their achievements, with a focus on adaptability and feasibility.

Providing annual budgets for teachers to conduct research and publish their findings emerged as a crucial strategy, scoring 4.51 for adaptability and 4.61 for feasibility. This underscores the importance of financial resources in enabling

effective research activities. Similarly, creating competitive grant programs aligned with institutional goals received high ratings of 4.77 for adaptability and 4.67 for feasibility, indicating their potential to drive innovation in research projects.

Collaboration with reputable journals to facilitate publication and reduce associated costs was also highly rated, achieving scores of 4.79 for adaptability and 4.72 for feasibility. This strategy ensures teachers have access to reputable publishing avenues, promoting their academic visibility. Providing subscriptions to online academic libraries and databases for literature reviews and citation access scored 4.23 for adaptability and 4.10 for feasibility, reflecting the need for readily available informational resources.

Mentorship in research, where experienced researchers guide novice teachers, received scores of 4.30 for adaptability and 4.59 for feasibility. This highlights the critical role of mentorship in fostering professional growth. Additionally, conducting workshops on research methodologies, publication processes, and effective presentation skills showed significant potential, with scores of 4.03 for adaptability and 4.57 for feasibility.

Developing online platforms for teachers to share research, collaborate, and receive feedback was another impactful strategy, scoring 4.18 for adaptability and 4.50 for feasibility. Recognition programs, including awards and incentives for impactful research, scored 4.33 for adaptability and 4.45 for feasibility, emphasizing the value of acknowledging academic contributions. Furthermore, offering reduced teaching loads or sabbaticals for teachers engaged in research achieved a high feasibility score of 4.71, highlighting the importance of balancing teaching and research responsibilities.

Finally, sponsoring teacher attendance and presentations at national and international conferences emerged as a highly effective strategy, scoring 4.78 for adaptability and 4.82 for feasibility. This strategy underscores the importance of academic exposure in enhancing teachers' professional profiles.

In summary, the overall scores for adaptability (4.44) and feasibility (4.53) indicate the effectiveness of these strategies. Prioritizing initiatives such as funding

support, grant programs, mentorship, and conference sponsorships can significantly enhance teachers' research opportunities, academic growth, and career satisfaction.

Table 4.35 Analysis results of Strategies to Reduce Administrative Workload and Improve Professional Growth and Teaching Quality.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1. Implement digital tools and software to automate routine administrative tasks like attendance and grading.	4.59	0.29	highest	4.79	0.33	highest
2. Assign non-teaching tasks, such as event coordination, to dedicated administrative staff.	4.23	0.41	high	4.27	0.37	high
3. Reduce paperwork by digitizing processes like performance appraisals and course planning.	4.65	0.43	highest	4.55	0.28	highest
4. Hire teaching assistants to support teachers with classroom management and preparation tasks.	4.58	0.37	highest	4.75	0.35	highest
5. Use advanced scheduling tools to create balanced workloads and minimize unnecessary meetings.	4.73	0.33	highest	4.80	0.36	highest
6. Define specific boundaries between teaching and administrative responsibilities.	4.59	0.45	highest	4.45	0.45	high
7. Combine various reports into a single, simplified format to save time.	4.46	0.47	high	4.35	0.42	high

Table 4.35 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
8. Conduct workshops on effective time management to help teachers prioritize their tasks.	4.70	0.38	highest	4.50	0.42	highest
9. Create collaborative platforms where teachers can share resources and distribute workloads.	4.65	0.23	highest	4.45	0.23	high
10. Regularly evaluate and adjust the distribution of administrative responsibilities to ensure equity.	4.78	0.37	highest	4.68	0.17	highest
Total	4.60	0.21	highest	4.56	0.33	highest

Table 4.35 presents the analysis results of strategies to reduce administrative workload and improve professional growth and teaching quality. It evaluates the adaptability and feasibility of various strategies aimed at alleviating teachers' administrative burdens. The strategies, rated as "highest" in both adaptability and feasibility, reflect their potential for practical implementation.

Key strategies include implementing digital tools and software to automate routine tasks such as attendance and grading, and assigning non-teaching tasks to administrative staff to free up teachers' time. Strategies like reducing paperwork by digitizing processes and hiring teaching assistants also gained high scores for their effectiveness in supporting classroom management and preparation.

Advanced scheduling tools were recommended to create balanced workloads and minimize unnecessary meetings. Defining boundaries between teaching and administrative responsibilities and combining various reports into simplified formats were also suggested as time-saving approaches. Additionally,

conducting workshops on effective time management and creating collaborative platforms for teachers were highlighted to help prioritize tasks and share administrative efforts.

Regular evaluation and adjustment of the distribution of responsibilities are essential to ensure equity and reduce stress among teachers. The overall high scores for these strategies, with adaptability rated at 4.60 and feasibility at 4.56, underscore their practicality and alignment with teacher needs for professional growth and teaching quality enhancement.

Table 4.36 Analysis results of Strategies to Promote the Adoption of Digital Tools
and Modern Technologies in Teaching Practices and Professional
Learning.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\mathrm{X}}$	S.D.	Level	$\overline{\mathrm{X}}$	S.D.	Level
1. Incorporate learning management systems (LMS), virtual classrooms, and online resources in teaching plans.	4.87	0.17	highest	4.67	0.17	highest
2. Organize workshops and certifications to enhance teachers' digital literacy and proficiency in modern technologies.	4.83	0.13	highest	4.73	0.23	highest
3. Implement a mix of traditional and digital teaching methods to create dynamic learning environments.	4.89	0.05	highest	4.79	0.15	highest
4. Introduce simulation-based tools for practical training, such as virtual labs and 3D modeling platforms.	4.79	0.18	highest	4.69	0.28	highest

Table 4.36 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
5. Provide funding for teachers to acquire necessary devices, software, and technology subscriptions.	4.67	0.20	highest	4.87	0.20	highest
6. Create forums for teachers to share experiences and innovative methods of integrating technology into teaching.	4.63	0.43	highest	4.73	0.43	highest
7. Partner with educational technology companies to access tools, training, and support at discounted rates.	4.49	0.35	high	4.49	0.35	high
8. Train teachers to create multimedia learning materials, including videos, podcasts, and interactive modules.	4.56	0.27	highest	4.36	0.37	high
9. Regularly assess new technologies, such as AI and VR, for potential integration into teaching practices.	4.79	0.28	highest	4.30	0.28	high
10. Establish dedicated IT support teams to help teachers with technical issues and troubleshooting.	4.51	0.28	highest	4.41	0.28	high
Total	**4.70**	**0.29**	**highest**	**4.60**	**0.33**	**highest**

Table 4.36 presents an analysis of strategies aimed at promoting the adoption of digital tools and modern technologies in teaching practices and professional learning. The strategies evaluated include implementing learning management systems (LMS), virtual classrooms, and online resources in teaching plans, alongside fostering a blend of traditional and digital teaching methodologies.

Each strategy was assessed for adaptability and feasibility. The strategy to incorporate LMS and virtual classrooms received high ratings, with adaptability and feasibility scores of 4.87 and 4.67, respectively. Organizing workshops and certifications to enhance teachers' digital literacy also received a strong evaluation, emphasizing its potential to equip educators with necessary technological skills.

Further strategies involve providing funding for necessary technological resources, introducing simulation-based tools for practical training, and creating forums for teachers to share experiences and innovative methods. Notably, partnering with educational technology companies to access tools and training, as well as training teachers in multimedia content creation, were highly rated for both adaptability and feasibility, highlighting their practical and impactful nature.

The table underscores the importance of continuous assessment and support, such as regularly updating technology usage and providing IT support teams to address technical challenges. These measures ensure smooth integration and utilization of digital tools in teaching, paving the way for enhanced professional learning and dynamic classroom environments.

Overall, the total adaptability and feasibility scores for the strategies stand at 4.70 and 4.60, respectively, indicating their high potential for successful implementation in modern educational practices.

Table 4.37 Analysis results of Strategies to Establish Step-by-Step Structured Training
Programs for Continuous Professional Growth.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level
1. Conduct regular surveys and skill gap analyses to identify areas where teachers require additional training.	4.31	0.28	high	4.31	0.38	high
2. Create tailored development roadmaps for each teacher, focusing on their specific goals and challenges.	4.47	0.30	high	4.47	0.26	high
3. Offer bite-sized, focused training modules that cover diverse topics like pedagogy, technology, and management.	4.53	0.19	highest	4.59	0.22	highest
4. Pair teachers with experienced mentors to provide guidance, feedback, and career advice.	4.41	0.28	high	4.71	0.38	highest
5. Design certification programs that recognize the completion of training milestones and boost credentials.	4.47	0.20	high	4.97	0.10	highest
6. Schedule regular skill-building workshops to keep teachers updated with industry trends and teaching innovations.	4.59	0.39	highest	4.49	0.39	high
7. Provide access to online training resources, webinars, and virtual classes for flexible learning options.	4.69	0.01	highest	4.94	0.21	highest

Table 4.37 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level
8. Establish platforms where teachers can share experiences, challenges, and solutions in professional learning communities.	4.61	0.08	highest	4.91	0.08	highest
9. Regularly measure the outcomes of training programs through teacher performance evaluations and feedback.	4.97	0.10	highest	4.87	0.20	highest
10. Advocate for sustained financial support to ensure uninterrupted access to high-quality professional development programs.	4.47	0.26	high	4.46	0.46	high
Total	**4.55**	**0.31**	**highest**	**4.67**	**0.27**	**highest**

Table 4.37 shown that the analysis of strategies to establish step-by-step structured training programs for continuous professional growth highlights their adaptability and feasibility. Conducting regular skill gap analyses to identify areas requiring additional training was rated as "high" for both adaptability (mean 4.31) and feasibility (mean 4.31), emphasizing its importance in tailoring programs to teacher needs. Similarly, creating personalized development roadmaps for teachers, focusing on their specific goals and challenges, received the "highest" rating for adaptability (mean 4.47) and feasibility (mean 4.47), underscoring its effectiveness in addressing individual requirements.

Offering bite-sized training modules that cover diverse topics such as pedagogy, technology, and management also received "highest" ratings for adaptability (mean 4.53) and feasibility (mean 4.59). This demonstrates the

practicality of modular training in fostering focused professional growth. Pairing teachers with experienced mentors for guidance and career advice was rated "high" in both categories (adaptability mean 4.01, feasibility mean 4.17), reflecting its value in providing individualized support.

Recognizing teachers' achievements through certification programs gained "highest" ratings for adaptability (mean 4.47) and feasibility (mean 4.39), highlighting the motivational impact of acknowledging milestones. Regular skill-building workshops to keep teachers updated on industry trends and teaching innovations were similarly rated "highest" (adaptability mean 4.59, feasibility mean 4.49), reinforcing their role in continuous professional growth.

Providing access to online training resources, webinars, and virtual classes was particularly well-rated, achieving "highest" scores for both adaptability and feasibility (mean 4.94 for each), signifying the importance of flexible learning opportunities. Establishing professional learning communities to share experiences, challenges, and solutions was also rated "highest" (adaptability mean 4.61, feasibility mean 4.91), emphasizing the importance of collaboration among teachers.

Regularly measuring the outcomes of training programs through evaluations and feedback earned "highest" ratings (adaptability mean 4.97, feasibility mean 4.87), showcasing its critical role in ensuring program effectiveness. Lastly, advocating for sustained funding and uninterrupted access to training initiatives was rated as "highest" for adaptability (mean 4.46) and feasibility (mean 4.67), emphasizing the need for consistent support.

Overall, the strategies for structured training programs received the "highest" ratings for both adaptability (mean 4.55) and feasibility (mean 4.67), indicating their effectiveness in fostering professional growth through systematic and continuous development.

Table 4.38 Analysis results of Strategies to Reform Job Title Evaluation Systems to
Ensure Fairness and Boost Teacher Satisfaction.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\bar{\text{X}}$	S.D.	Level	$\bar{\text{X}}$	S.D.	Level
1. Define clear, objective, and publicly accessible standards for evaluating teacher performance.	4.73	0.23	highest	4.73	0.23	highest
2. Incorporate a range of metrics, including teaching quality, research output, and community engagement.	4.79	0.35	highest	4.69	0.15	highest
3. Form unbiased committees with representatives from teachers, administrators, and external experts.	4.11	0.18	high	4.71	0.18	highest
4. Train evaluators to ensure consistency, fairness, and adherence to the evaluation framework.	4.67	0.20	highest	4.87	0.20	highest
5. Implement a systematic schedule for evaluations, ensuring consistent and timely feedback.	4.89	0.19	highest	4.79	0.49	highest
6. Encourage teachers to participate in self-assessment processes to reflect on their achievements and goals.	4.66	0.37	highest	4.66	0.37	highest
7. Use peer and student evaluations as supplementary inputs to provide a holistic view of performance.	4.59	0.48	highest	4.59	0.38	highest
8. Establish formal channels for teachers to contest evaluation outcomes or provide additional evidence.	4.67	0.17	highest	4.87	0.17	highest

Table 4.38 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
9. Link evaluation outcomes to promotions, pay raises, and professional development opportunities.	4.66	0.37	highest	4.66	0.37	highest
10. Provide detailed and constructive feedback to teachers after evaluations, highlighting strengths and areas for improvement.	4.23	0.31	high	3.63	0.31	high
Total	4.60	0.17	highest	4.62	0.29	highest

Table 4.38 highlights strategies aimed at reforming job title evaluation systems to ensure fairness and improve teacher satisfaction. These strategies were assessed for adaptability and feasibility, with results indicating high to highest ratings across all metrics. This underscores the potential effectiveness and practicality of implementing these reforms.

A key priority is defining clear, objective, and publicly accessible standards for evaluating teacher performance, which received the highest feasibility score of 4.73 and adaptability of 4.78. Incorporating diverse metrics, such as teaching quality, research output, and community engagement, scored highly as well (4.79 for adaptability and 4.51 for feasibility), emphasizing the importance of multidimensional evaluations. Forming unbiased committees with representatives from teachers, administrators, and external experts, while slightly lower in feasibility, demonstrated strong adaptability potential.

Training evaluators to ensure consistency and fairness emerged as one of the most effective strategies, with equal scores of 4.67 for both adaptability and

feasibility. Similarly, implementing systematic and timely feedback mechanisms scored the highest for adaptability (4.89) and feasibility (4.79), highlighting their alignment with organizational goals. Encouraging teachers to participate in self-assessment processes promotes reflective practices and scored 4.66 in adaptability and 4.36 in feasibility. Including peer and student evaluations to provide a holistic perspective of teaching performance also scored highly, with 4.59 adaptability and 4.38 feasibility.

Establishing grievance procedures for contesting evaluation outcomes ensures fairness and was rated at 4.66 adaptability and 4.36 feasibility. Linking evaluations to tangible rewards such as promotions, pay raises, and professional development opportunities scored similarly high (4.46 adaptability, 4.36 feasibility). Lastly, providing detailed and constructive feedback after evaluations to highlight strengths and areas for improvement, while slightly lower in feasibility (3.36), still underscores the need for developmental guidance.

In summary, the strategies demonstrate strong overall adaptability (4.60 average) and feasibility (4.62 average), showcasing their potential to enhance transparency, fairness, and teacher motivation. These reforms align institutional objectives with teacher satisfaction, fostering a fairer and more supportive evaluation system.

The evaluation of all 10 strategies shown as Table 4.39.

Table 4.39 Analysis results of strategies to Implement stress management and
wellness programs to address teacher burnout and improve work-life
balance.

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{\text{X}}$	S.D.	Level	$\overline{\text{X}}$	S.D.	Level
1. Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands.	4.58	0.29	highest	4.57	0.33	highest
2. Provide structured and long-term career development pathways to improve teacher satisfaction and growth.	4.53	0.29	highest	4.54	0.26	highest
3. Implement stress management and wellness programs to address teacher burnout and improve work-life balance.	4.52	0.26	highest	4.48	0.28	high
4. Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement.	4.60	0.33	highest	4.58	0.26	highest
5. Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers.	4.60	0.33	highest	4.47	0.31	high
6. Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements.	4.44	0.29	high	4.53	0.33	highest

Table 4.39 (Continued)

Strategies	Suitability					
	Adaptability			Feasibility		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
7. Reduce Administrative Workload and Improve Professional Growth and Teaching Quality.	4.60	0.21	highest	4.56	0.33	highest
8. Promote the adoption of digital tools and modern technologies in teaching practices and professional learning.	4.70	0.29	highest	4.60	0.33	highest
9. Establish step-by-step structured training programs to ensure continuous professional growth.	4.55	0.31	highest	4.67	0.27	highest
10. Reform job title evaluation systems to ensure fairness and boost teacher satisfaction.	4.60	0.17	highest	4.62	0.29	highest
Total	**4.57**	**0.31**	**highest**	**4.56**	**0.29**	**highest**

Table 4.39's analysis of various strategies for vocational teacher development divided into 4 indicators, life development, professional development, social development and organize development, across multiple domains-dual-competency skills, career development pathways, stress management, social engagement, research support, reducing administrative workload, adopting digital tools, structured training programs, and job title evaluation reforms-revealed consistent patterns in adaptability and feasibility. The strategies presented were highly rated across all categories, highlighting their practicality and effectiveness in addressing the developmental needs of vocational teachers.

In the area of dual-competency skills, strategies such as fostering industry-academia partnerships, integrating industry-relevant skills, and offering customized

training programs demonstrated strong adaptability and feasibility, with ratings of 4.58 and 4.57, respectively. This underscores the critical importance of aligning teaching practices with workforce demands. Similarly, strategies for providing structured career development pathways, such as individualized career planning, mentorship programs, and professional learning communities, received the highest adaptability (4.53) and feasibility (4.54) scores. These findings highlight the necessity of creating clear and long-term opportunities for teacher satisfaction and growth.

Addressing teacher burnout through stress management and wellness programs scored highly, with adaptability at 4.52 and feasibility at 4.48. Strategies like offering wellness programs, gym memberships, and flexible schedules are essential to improving teachers' work-life balance and overall well-being. Encouraging social engagement, including participation in skills competitions, mentorship programs, and public welfare activities, also showed strong results (4.60 adaptability, 4.58 feasibility). These initiatives emphasize the value of fostering teacher involvement in activities that benefit both their professional and societal contributions.

In terms of research support, providing funding, facilitating publications, and organizing workshops scored 4.44 in adaptability and 4.53 in feasibility. These findings reflect the critical need for strengthening research infrastructure and providing platforms for teachers to showcase their academic achievements. Similarly, strategies to reduce administrative workload, such as automating routine tasks and optimizing schedules, scored 4.60 (adaptability) and 4.56 (feasibility), highlighting the need to free up teachers' time for professional growth and teaching excellence.

The adoption of modern digital tools and technologies in teaching practices emerged as a priority, receiving the highest overall ratings of adaptability (4.70) and feasibility (4.60). This demonstrates the importance of leveraging digital resources to enhance teaching methodologies and improve efficiency. Establishing structured training programs for continuous professional growth also received strong ratings (4.55 adaptability, 4.67 feasibility), emphasizing the need for personalized and targeted professional development initiatives.

Finally, reforming job title evaluation systems to ensure fairness and boost teacher satisfaction was another highly rated area (4.60 adaptability, 4.62 feasibility). Transparent evaluation standards, diverse metrics, and tangible rewards were identified as essential components of these reforms.

In conclusion, the findings highlight the significant potential of these strategies to address the diverse and multidimensional needs of vocational teachers. By aligning institutional goals with teacher development, empowering educators through fair evaluations, structured training, and stress management, and adopting future-ready practices like digital tools and industry collaborations, vocational education can be significantly enhanced. These strategies not only contribute to the professional and personal growth of teachers but also strengthen the overall sustainability and effectiveness of vocational education systems.

Chapter 5

Conclusion Discussion and Recommendations

The research objectives of the Strategies a high-quality professional of vocational college teachers in the New Era: 1) To study the conditions, problems and factors related to the development of strategies of High-quality vocational teacher professionals in the new era. 2) To create a strategy Professional development of high -quality vocational teachers in the new era. 3) To evaluate the appropriateness of the strategy. Professional development of high -quality vocational teachers in the new era Area of research.

For the presentation of the research results, the details were as follows:

Conclusion

Research on the development of the strategies a high-quality professional of vocational college teachers in the New Era, the researchers have the following procedures.

1) Results of studying the conditions, problems and factors related to the High-quality vocational teacher professionals in the new era are high to highest level. Life development is ranking highest level. Professional development is ranking high level. Social development is ranking high level. Organize development is ranking high level.

2) Results of development the strategies for Professional development of high -quality vocational teachers in the new era are total 10 strategies from SWOT, PEST, TOWS analysis, including composition factors and influencing factors.

3) Results of evaluating the appropriateness for the strategy of Professional development of high -quality vocational teachers in the new era are all highest adaptability and highest feasibility.

The details of the research conclusions were as follow:

1. Results of studying the conditions, problems and factors related to the High-quality vocational teacher professionals in the new era.

The findings of this study studies the conditions, problems, and factors influencing the high-quality vocational teacher professionals. These results are summarized into four key sections: life development, professional development, social development, and organizational development.

1.1 Life Development

The life development of vocational teachers is heavily impacted by stress, work-life balance, and the need for wellness initiatives. The study identified key challenges such as high workloads, insufficient wellness programs, and limited personal growth opportunities. The analysis of life development highlights several critical aspects regarding the well-being and professional satisfaction of teachers in higher vocational colleges. Teachers exhibit a strong sense of professional identity and pride in their roles. They value teaching as a pursuit and career, showcasing their dedication to creating meaningful dialogues with students and consistently preparing for class. These elements reflect a strong foundation of commitment and alignment with the teaching profession.

However, challenges persist, particularly in maintaining personal health and managing stress. Many teachers face issues related to physical well-being, such as chronic health conditions and unhealthy lifestyle habits, which indicate the need for institutional support in promoting healthier practices. Additionally, the pressures associated with their roles, including the stress of professional responsibilities, call for better stress management initiatives.

Recognition and career development emerge as significant areas for improvement. Teachers seek acknowledgment for their contributions, such as through professional awards, and desire structured career development plans to guide their long-term growth. The importance of fostering a value-oriented education system is also emphasized, with teachers aspiring to instill egalitarian principles and other core values in their students.

Overall, the findings suggest a dual focus on improving personal well-being and professional satisfaction. This includes providing resources for health and stress management, establishing robust recognition systems, and supporting teachers in their career development. By addressing these areas, institutions can create a more supportive environment that fosters both the personal and professional growth of their teaching staff.

1.2 Professional development

For life development, key areas of focus include maintaining a positive outlook towards teaching, fostering equal dialogue with students, and ensuring mental and physical well-being. Teachers emphasize the importance of values such as egalitarianism and professional ethics while also striving to balance their personal and professional lives. Challenges such as health concerns and stress need attention for holistic development.

In the realm of professional development, vocational teachers demonstrate a strong foundation in teaching methodologies, project-based learning, and the integration of technology in education. The emphasis lies on improving teaching quality, obtaining advanced certifications, and leveraging research for socio-economic benefits. However, there are gaps in participation in professional competitions and the application of research methods, which highlight opportunities for further skill enhancement and knowledge dissemination.

The analysis underscores the necessity for continuous support in terms of career progression, health management, and advanced training opportunities to ensure the sustainable growth and effectiveness of vocational teachers. These elements are pivotal in shaping a robust framework for the personal and professional growth of teachers in the evolving educational landscape.

The findings emphasize the importance of fostering holistic growth for vocational teachers. In life development, key priorities include promoting positive attitudes, open communication with students, and maintaining mental and physical well-being. Challenges such as stress and health issues require attention.

For professional development, teachers excel in using innovative teaching methods and integrating technology but need more participation in professional competitions and research application. There is also a focus on enhancing teaching quality and achieving advanced certifications.

Overall, the conclusion provides the need for ongoing support in career progression, health management, and advanced training to ensure teachers' sustainable growth and effectiveness in the evolving educational landscape.

1.3 Social development

Social development for high-quality vocational teachers highlights a moderate gap between the current and expected conditions, emphasizing areas that need improvement to enhance their societal contributions and interpersonal engagements. Teachers currently have limited participation in social groups, public welfare organizations, and academic activities, signaling a need for fostering broader societal involvement and collaboration. Attending lectures, reviews, and exchanges outside their routine roles remains an area with untapped potential, as teachers are expected to engage more actively in intellectual and community enrichment activities.

Additionally, vocational or skills training outside the campus reflects a growing need for teachers to expand their expertise and adaptability to meet evolving industry demands. Teachers play a crucial role as guides for students in skills competitions, technical training, and club activities, and there is a clear expectation to amplify these mentoring efforts. Lastly, providing guidance to students in their personal and professional lives, including psychological and employment support, is another critical dimension of social development where enhancements are expected.

Overall, the findings point toward a need for vocational institutions to create structured opportunities for teachers to participate in social and professional networks. Promoting community engagement, strengthening mentorship programs, and enabling teachers to access diverse development platforms are essential steps

to bridging the gap between the current and expected conditions in social development.

1.4 Organize development

Organize development highlights several key areas for improvement in higher vocational colleges. Teachers desire greater autonomy and participation in decision-making processes related to college affairs. This aligns with the need for a supportive environment where leadership values the input and expertise of educators.

Colleges are encouraged to foster a culture that values and respects education at all levels, from grassroots management to leadership. This includes fair distribution of remuneration and benefits, which should prioritize frontline educators who contribute directly to student outcomes. Moreover, a fair and transparent job title evaluation system is critical for maintaining teacher satisfaction and motivation.

The increasing recognition of vocational education by society, parents, and students reflects a positive trend, yet colleges must continue to guide and support career development planning for teachers. This includes structured professional learning and mental health support, which are essential for maintaining educator well-being.

Institutions are also urged to establish consistent training plans, emphasizing annual professional development opportunities. Such initiatives should be backed by reliable funding and institutional support, ensuring that teacher growth aligns with the evolving needs of vocational education.

Overall, the findings underscore the importance of creating a collaborative and supportive organizational environment where teachers feel valued, empowered, and equipped to contribute effectively to vocational education.

2. Results of development the strategies for Professional development of high-quality vocational teachers in the new era.

Research on development of the strategies for Professional development of high -quality vocational teachers in the new era. by using the condition, problem

and factors related, taking it through SWOT Analysis, PEST Analysis, and TOWS Matrix, resulted into complete strategies, details were as below:

2.1 Vision

1) Establish a community of vocational teachers who are leaders in their fields, blending academic rigor with practical industry expertise to create transformative learning experiences.

2) Promote cutting-edge teaching practices and technological integration, enabling teachers to prepare students for dynamic, future-oriented career paths.

3) Position vocational teachers as influential contributors to societal progress through their roles in education, mentorship, and community engagement.

2.2 Mission

1) Develop systems and resources that enable teachers to continuously advance their skills, competencies, and career potential in alignment with evolving industry and societal demands.

2) Implement initiatives that support teachers' mental, emotional, and physical health, creating a balanced and fulfilling professional environment.

3) Build bridges between institutions, industries, and communities to foster collaborative ecosystems that benefit both teachers and students.

2.3 Goals

2.3.1 Professional Development

1) Equip teachers with state-of-the-art skills and dual-competency expertise through modular training programs, industry collaboration, and research opportunities.

2) Enhance teaching effectiveness by adopting modern technologies and pedagogical innovations.

3) Recognize and reward exceptional performance through institutional recognition systems.

2.3.2 Life Development

1) Reduce teacher stress and improve work-life balance by streamlining administrative responsibilities and introducing wellness programs.

2) Provide flexible work arrangements and career pathways that support both professional aspirations and personal commitments.

3) Promote health and wellness initiatives, such as counseling services and fitness programs, to improve teachers' overall quality of life.

2.3.3 Social and Organizational Development

1) Increase participation in skills competitions, mentorship programs, and public welfare activities to enhance teachers' societal engagement and professional networks.

2) Reform job title evaluation systems and create fair, transparent criteria for career progression to build trust and satisfaction among teachers.

3) Foster collaboration between academia and industry to align educational practices with real-world demands and provide mutual benefits for institutions and industries.

2.4 Analysis for Strategic Planning

The strategies planning for professional development of high-quality vocational teachers are shown as following:

1. Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands.

2. Provide structured and long-term career development pathways to improve teacher satisfaction and growth.

3. Implement stress management and wellness programs to address teacher burnout and improve work-life balance.

4. Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement.

5. Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers.

6. Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements.

7. Reduce Administrative Workload and Improve Professional Growth and Teaching Quality.

8. Promote the adoption of digital tools and modern technologies in teaching practices and professional learning.

9. Establish step-by-step structured training programs to ensure continuous professional growth.

10. Reform job title evaluation systems to ensure fairness and boost teacher satisfaction.

This strategic framework aims to guide the development the strategies for Professional development of high -quality vocational teachers in the new era, addressing conditions, problems, factors influencing, and capitalizing on available opportunities for growth and improvement.

To categorize the strategies into Proactive (SO), Preventive (ST), Defensive (WT), and Corrective (WO), we'll align the measures under these categories based on their strategic focus:

2.4.1 Proactive (SO):

Proactive strategies focus on leveraging strengths and opportunities to ensure future success and growth.

1) Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands:

This strategy capitalizes on opportunities for collaboration with industry to align educational outputs with market demands. It ensures that vocational teachers remain at the forefront of industry needs, creating a workforce equipped with the latest skills and knowledge.

2) Promote the adoption of digital tools and modern technologies in teaching practices and professional learning:

By integrating advanced teaching methods such as learning management systems (LMS), virtual classrooms, and simulation tools, this strategy

equips teachers with future-ready skills, ensuring their ability to deliver dynamic and effective teaching in the digital age.

2.4.2 Preventive (ST):

Preventive strategies aim to mitigate potential threats by utilizing existing strengths.

1) Implement stress management and wellness programs to address teacher burnout and improve work-life balance:

Recognizing the growing challenge of teacher burnout, this strategy introduces wellness initiatives like stress management workshops, professional counseling, and flexible teaching models. These measures aim to prevent productivity loss and attrition among teachers.

2) Reduce administrative workload to allow teachers to focus on professional growth and teaching quality:

Administrative burdens can detract from teaching effectiveness. By automating routine tasks and streamlining administrative processes, this strategy ensures that teachers can dedicate their time to professional development and quality instruction.

2.4.3 Defensive (WT):

Defensive strategies protect against weaknesses and threats to maintain stability.

1) Establish step-by-step structured training programs to ensure continuous professional growth:

Structured training programs shield teachers from skill stagnation by providing ongoing professional development. These programs foster adaptability and ensure teachers are equipped to meet the evolving demands of vocational education.

2) Reform job title evaluation systems to ensure fairness and boost teacher satisfaction:

This strategy defends against dissatisfaction by introducing transparent and equitable evaluation systems. Fair assessment processes encourage teacher retention and motivate teachers to excel in their roles.

2.4.4 Corrective (WO):

Corrective strategies address existing weaknesses by capitalizing on opportunities.

1) Provide structured and long-term career development pathways to improve teacher satisfaction and growth:

This strategy focuses on filling gaps in professional growth by introducing clear career progression pathways. It enhances teacher satisfaction and retention by offering opportunities for personal and professional advancement.

2) Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement:

Addressing the gap in teacher engagement with their communities, this strategy leverages mentorship and competitions to foster collaboration, build teacher-student relationships, and develop professional networks.

3) Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements:

To correct the lack of research opportunities, this strategy enhances teachers' ability to conduct and publish impactful research. It opens access to funding, academic platforms, and collaborative networks, promoting a culture of inquiry and innovation.

4) Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers:

Addressing the lack of recognition, this strategy introduces award systems to acknowledge and celebrate teachers' contributions. It fosters a sense of accomplishment and motivates teachers to excel in their professional roles.

The conclusion highlights a balanced approach to vocational teacher development. Proactive strategies aim to position teachers ahead of future

trends, ensuring they remain relevant in a changing educational landscape. Preventive strategies safeguard against potential threats such as burnout and inefficiency, ensuring teachers' well-being and productivity. Defensive strategies protect teachers from stagnation and dissatisfaction, fostering stability within the teaching workforce. Lastly, Corrective strategies address current gaps in career development, recognition, and engagement, creating opportunities for growth and motivation.

Each category complements the others, forming a comprehensive framework for empowering vocational teachers to excel in the new era of education.

2.5 Implement strategies in high vocational college

2.5.1. Life Development

Strategies under life development aim to support teachers' personal growth and well-being to ensure a healthy work-life balance and overall satisfaction:

1) Provide stress management sessions, including mindfulness practices and healthy lifestyle coaching.

2) Offer professional counseling and employee assistance programs to address mental health concerns.

3) Create flexible working models, such as hybrid teaching options, to accommodate personal needs.

4) Design relaxation or recreational areas and organize off-site retreats to promote relaxation and personal growth.

5) Implement health coverage, including preventive care and wellness programs, to ensure teachers' physical well-being.

2.5.2 Professional Development

Professional development strategies focus on enhancing teachers' skills, career growth, and research capabilities:

1) Establish individualized career development plans and provide access to continuing education opportunities.

2) Promote mentorship programs and leadership development initiatives to enhance professional expertise.

3) Recognize and reward teacher achievements to foster motivation and sustained growth.

4) Conduct skill-gap analyses and create tailored training programs covering pedagogy, technology, and leadership.

5) Support research activities by providing funding, platforms for collaboration, and recognition for impactful projects.

6) Facilitate access to modern teaching tools such as learning management systems, simulation tools, and digital classrooms to enhance teaching practices.

2.5.3 Social Development

Social development strategies aim to strengthen teachers' engagement within the community and foster collaboration with peers and students:

1) Encourage participation in skills competitions, mentorship programs, and public welfare activities to boost engagement.

2) Organize institutional events to recognize contributions and share success stories through newsletters, websites, or social media platforms.

3) Develop teacher networks for sharing experiences, offering support, and addressing challenges collaboratively.

4) Promote the role of teachers in guiding students in life, career, and technical skill-building activities.

5) Strengthen teacher-student relationships by organizing collaborative projects and integrating community services into institutional frameworks.

2.5.4 Organize Development

Organize development strategies focus on creating supportive institutional structures and improving administrative and evaluation systems:

1) Implement transparent job evaluation systems with clear, objective standards and diverse metrics, such as teaching quality and research output.

2) Automate routine administrative tasks, digitize processes, and establish platforms for equitable workload distribution.

3) Provide professional learning opportunities and systematic training programs for continuous teacher development.

4) Establish "step-by-step" training plans for teachers that align with career progression and institutional goals.

5) Promote collaboration between vocational institutions, industry leaders, and other stakeholders to align teaching with workforce demands.

6) Regularly evaluate and adjust administrative responsibilities to ensure equity and efficiency within the institution.

By categorizing strategies into these four sections, colleges can ensure a holistic approach to teacher development, addressing their personal, professional, social, and organizational needs comprehensively.

3. Results of evaluating the suitability of the strategy of Professional development of high -quality vocational teachers in the new era.

The evaluation results of the strategies for professional development of high-quality vocational teachers in the new era reveal significant adaptability and feasibility. Specifically, the strategies to address life development, professional development, social development, and organize development display both high and highest levels of applicability.

1) The adaptability of the strategies across 10 measures was consistently high, with analysis scores ranging between 4.44 and 4.78. This indicates that the proposed strategies are highly adaptable to diverse contexts and requirements within vocational teaching.

2) The feasibility of these strategies was evaluated to be at the highest level, with scores ranging from 4.53 to 4.82. This demonstrates strong potential for

successful implementation, indicating that the strategies are practical and actionable in real-world settings.

These results collectively highlight that the proposed strategies are both flexible and executable, paving the way for enhanced professional development and sustainable growth for vocational teachers in the new era. This underscores the importance of prioritizing these strategic measures in institutional planning to achieve targeted outcomes effectively.

Discussion

From the research results on the development of the strategies a high-quality professional of vocational college teachers in the New Era, the researchers have the following procedures.

Phase 1: Results of studying the conditions, problems and factors related to the development of strategies of High-quality vocational teacher professionals in the new era.

Phase 2: Results of development the strategies for Professional development of high-quality vocational teachers in the new era.

Phase 3: Results of evaluating the appropriateness of the strategy of Professional development of high -quality vocational teachers in the new era.

The details of the research conclusions were as follow:

1. Results of studying the conditions, problems and factors related to the High-quality vocational teacher professionals in the new era.

The study on the development strategies for high-quality vocational teacher professionals in the new era highlights significant insights into the underlying conditions, problems, and contributing factors that shape vocational education. These findings align with broader discussions in the literature on vocational education and teacher development.

The study identifies 4 core areas of development: life development, professional development, social development, and organizational development.

Each area represents a critical dimension for fostering the growth and sustainability of vocational teacher professionals.

1) Life Development

The findings show that teachers value opportunities for personal growth, health, and overall well-being, which are essential for maintaining their motivation and effectiveness (Wang & Zhang, 2020). However, challenges such as work-life balance and stress management persist, emphasizing the need for targeted interventions like wellness programs and professional counseling. Addressing these issues aligns with the research by Xie and Tang (2022), which underscores the importance of prioritizing teacher well-being in educational reforms.

2) Professional Development

Professional growth opportunities, including skill training, research engagement, and technology integration, were found to be key areas of focus. These align with the demands of the 21st-century workforce, where adaptability to emerging technologies is crucial (Chen et al., 2021). Despite the recognition of these needs, barriers such as inadequate resources and time constraints hinder their effective implementation. This calls for systemic support from vocational institutions, as recommended by Liu and Zhao (2023).

3) Social Development

Teachers' participation in social activities, mentorship programs, and skill competitions is highlighted as a factor that fosters community engagement and collaboration. As noted by Li and Sun (2021), social engagement not only enhances teachers' networks but also positively impacts students' learning experiences. However, limited opportunities for teachers to participate in community-based projects or professional networks remain a challenge.

4) Organize Development

Institutional support in the form of fair evaluation systems, career planning assistance, and professional recognition was emphasized as a critical factor for teacher satisfaction and retention. The findings echo Zhang et al. (2021), who argued that organizational support is pivotal in creating a conducive environment for

teacher development. However, the study also identifies gaps in policy implementation and resource allocation, which require attention to bridge the divide between current and expected conditions.

The results align with international research emphasizing the multi-faceted nature of teacher professional development (Darling-Hammond et al., 2017). For instance, the focus on dual-competency skills and technology integration is consistent with global trends in vocational education aimed at preparing students for an increasingly digital and interconnected world. Furthermore, the findings highlight the importance of a balanced approach that addresses individual, professional, and institutional needs, reflecting a holistic view of teacher development.

2. Results of development the strategies for Professional development of high -quality vocational teachers in the new era.

The study identified ten comprehensive strategies to address the professional development of vocational teachers in the new era. These strategies encompass a range of initiatives targeting skill enhancement, career growth, institutional recognition, and the integration of modern practices and tools. The findings align with global efforts to modernize vocational education and enhance the quality and sustainability of teaching practices.

1) Enhancing Dual-Competency Skills through Industry-Academia Collaboration

This strategy emphasizes collaboration between vocational institutions and industry leaders to ensure that teaching aligns with workforce demands. The integration of industry-relevant skills and technologies into curricula is essential for bridging the gap between education and employment. This aligns with research by Liu et al. (2021), who underscore the value of partnerships in fostering competency-based education.

2) Providing Structured and Long-Term Career Development Pathways

Creating clear career pathways and providing professional learning opportunities are key to improving teacher satisfaction and growth. Strategies such as individualized career plans, mentorship programs, and leadership development

opportunities can help retain high-quality teachers. Wang and Zhang (2020) highlight the importance of such measures in sustaining teacher motivation and commitment.

3) Implementing Stress Management and Wellness Programs

Teacher burnout is a growing concern, and the implementation of wellness initiatives can significantly improve work-life balance. Programs such as mindfulness training, professional counseling, and flexible scheduling can mitigate stress and enhance teacher well-being (Xie & Tang, 2022). This holistic approach also improves teacher productivity and engagement.

4) Increasing Participation in Skills Competitions and Mentorship Programs

Promoting social engagement through skills competitions, mentorship, and public welfare programs not only enhances teachers' professional networks but also fosters a sense of purpose. Zhang et al. (2021) suggest that such initiatives contribute to the development of a collaborative teaching culture.

5) Strengthening Institutional Recognition Systems

Recognizing teacher achievements through awards and titles such as "Excellent Teacher" motivates teachers to strive for excellence. Institutional recognition systems, coupled with tangible benefits like career advancement, can enhance teacher morale and performance (Darling-Hammond et al., 2017).

6) Improving Research Support

Providing funding, platforms, and tools for research enables teachers to contribute to academic knowledge while advancing their careers. Support for research publication and participation in conferences ensures that teachers stay updated on educational innovations (Chen et al., 2021).

7) Reducing Administrative Workload

Minimizing administrative responsibilities allows teachers to focus on professional growth and teaching quality. Strategies such as digitizing administrative tasks and delegating non-teaching responsibilities improve teacher efficiency and satisfaction (Li & Sun, 2021).

8) Promoting the Adoption of Digital Tools and Modern Technologies

The integration of digital tools and modern technologies into teaching practices prepares teachers for the demands of the digital era. Training teachers in virtual classrooms, learning management systems, and emerging technologies like AI and VR ensures that vocational education remains relevant and forward-looking (Chen et al., 2021).

9) Establishing Step-by-Step Structured Training Programs

Continuous professional growth can be achieved through well-designed training programs. These include skill-building workshops, flexible online courses, and certification programs that address the evolving needs of teachers (Darling-Hammond et al., 2017).

10) Reforming Job Title Evaluation Systems

Reforming job evaluation systems to incorporate fairness and transparency ensures that teachers are assessed on objective criteria. Linking evaluations to promotions, pay raises, and professional development opportunities enhances teacher satisfaction and institutional trust (Xie & Tang, 2022).

The ten strategies outlined in this study address the multifaceted challenges of professional development for high-quality vocational teachers. By focusing on skill enhancement, career growth, institutional support, and technology integration, these strategies align with global best practices in vocational education. Future research should assess the long-term impact of these strategies on teacher effectiveness, student outcomes, and institutional performance.

3. Results of evaluating the suitability of the strategy of Professional development of high-quality vocational teachers in the new era.

The results of the evaluation of the strategies for professional development of high-quality vocational teachers in the new era demonstrated high levels of adaptability and feasibility across multiple dimensions. These findings underscore the relevance and practicality of the proposed strategies in addressing the challenges faced by vocational teachers while fostering sustainable growth and career satisfaction.

1) Adaptability of the Strategies

The analysis of the adaptability of the proposed strategies reveals that they are highly suitable for addressing the contemporary needs of vocational education. Strategies such as enhancing dual-competency skills through industry-academia collaboration and promoting the adoption of digital tools and technologies scored at the highest level of adaptability. This finding reflects the increasing importance of aligning educational practices with evolving workforce demands and digital advancements (Liu et al., 2021). Moreover, structured career development pathways and stress management initiatives also demonstrated strong adaptability, indicating their alignment with teachers' professional and personal needs (Darling-Hammond et al., 2017).

2) Feasibility of the Strategies

The feasibility of the strategies was also rated at a high level, demonstrating their practicality for implementation in vocational institutions. Initiatives such as reducing administrative workloads and providing research support were found to be particularly feasible, given their focus on leveraging existing resources and streamlining processes. The feasibility of structured training programs and institutional recognition systems further supports their relevance, as these strategies build upon proven frameworks for professional growth and motivation (Chen et al., 2021). The results indicate that institutions are well-positioned to implement these strategies with minimal barriers.

High Relevance to Emerging Challenges: Strategies such as stress management and wellness programs directly address prevalent issues like teacher burnout, ensuring long-term retention and job satisfaction (Xie & Tang, 2022).

Alignment with Technological Advancements: The integration of modern technologies such as AI and VR into teaching practices demonstrates the strategies' forward-looking nature and their ability to prepare teachers for the digital era (Chen et al., 2021).

Focus on Teacher Empowerment: Measures like transparent job evaluation systems and dual-competency development empower teachers to take

control of their careers, enhancing their confidence and engagement (Wang & Zhang, 2020).

The high ratings for adaptability and feasibility suggest that these strategies are not only relevant but also actionable within vocational education systems. By addressing diverse aspects of professional development—ranging from skills enhancement to mental well-being—these strategies provide a comprehensive framework for improving teacher performance and institutional outcomes. Moreover, the alignment of these strategies with international best practices ensures their scalability and potential for adoption in varied educational contexts (Darling-Hammond et al., 2017).

The evaluation of the strategies underscores their appropriateness for fostering the professional development of high-quality vocational teachers. With strong adaptability and feasibility, these strategies offer a roadmap for addressing contemporary challenges while building a sustainable and motivated teaching workforce. Future research could focus on longitudinal studies to assess the impact of these strategies on teacher retention, student performance, and institutional success.

Recommendation

General recommendation

To ensure the effective implementation of strategies for high-quality professional development, the following general recommendations are proposed:

1) Adopt a Comprehensive and Holistic Approach

Strategic planning should address life, professional, social, and organizational development as interconnected components. This approach ensures that vocational teachers' personal well-being, career growth, community engagement, and institutional support systems are all enhanced simultaneously.

2) Promote Collaboration Across Stakeholders

Collaboration between vocational institutions, industry leaders, policymakers, and communities is essential to align teaching practices with workforce demands.

Partnerships should be forged to enhance dual-competency skills, provide practical training opportunities, and integrate real-world industry expertise into vocational education.

3) Invest in Technology and Infrastructure

Institutions should prioritize adopting modern digital tools and technologies, such as learning management systems, simulation tools, and AI-driven teaching aids. These tools improve teaching efficiency, enrich learning experiences, and enable teachers to stay updated with innovative practices.

4) Emphasize Teacher Well-Being and Work-Life Balance

Addressing teacher well-being is critical for sustained performance. Institutions should implement stress management programs, provide comprehensive health coverage, and promote work-life balance through flexible work models and recreational initiatives.

5) Strengthen Professional Development Opportunities

Tailored training programs, mentorship initiatives, and leadership development opportunities should be at the core of strategic planning. Institutions must allocate sufficient resources to support continuous learning, career advancement, and recognition of teacher achievements.

6) Streamline Administrative Processes

Reduce administrative workloads through automation, digitization, and equitable task distribution. This allows teachers to focus more on teaching and professional development activities, ultimately improving teaching quality and job satisfaction.

7) Implement Transparent Evaluation Systems

Job evaluation systems should be fair, consistent, and aligned with clear metrics such as teaching quality, research contributions, and community engagement. Providing constructive feedback and linking evaluations to rewards, promotions, and career growth opportunities will enhance motivation and trust among teachers.

8) Encourage Community Engagement and Social Responsibility

Teachers should be empowered to engage in mentorship, public welfare programs, and skills competitions to foster a sense of social responsibility. This will strengthen the bond between teachers, students, and the community.

9) Focus on Data-Driven Decision-Making

Regularly assess teacher needs, institutional challenges, and the outcomes of implemented strategies through data-driven methods. Use surveys, feedback mechanisms, and performance metrics to refine and adapt strategies for continuous improvement.

10) Ensure Policy Support and Financial Investment

Strong policy frameworks and consistent financial investments are critical to achieving strategic goals. Institutions should advocate for policy support at national and regional levels and ensure sufficient funding for implementing programs effectively.

By following these recommendations, vocational institutions can develop and implement strategic plans that comprehensively address the needs of teachers, students, and communities while aligning with broader educational and economic goals.

Suggestions for further research

To enhance understanding and effectiveness in vocational teacher development, further research is suggested in the following areas:

1) Longitudinal Studies on Strategy Implementation

Conduct long-term studies to evaluate the sustained impact of implemented strategies on vocational teachers' performance, job satisfaction, and student outcomes. This research can identify the most effective approaches and refine existing strategies.

2) Cross-Cultural and Regional Comparisons

Explore differences in vocational teacher development strategies across various cultural and regional contexts. Comparative studies between countries or

regions can highlight best practices and offer insights into context-specific adaptations.

3) Impact of Technology Integration

Investigate the role of emerging technologies, such as AI, VR, and simulation-based tools, in improving vocational education. Studies should focus on how these tools enhance teaching methods, teacher competencies, and student engagement.

4) Teacher Well-Being and Mental Health

Examine the relationship between teacher well-being initiatives and job performance. Research should assess the effectiveness of stress management programs, work-life balance policies, and mental health support in vocational education settings.

5) Industry-Academia Collaboration

Study the dynamics of partnerships between vocational institutions and industries. Research should focus on the effectiveness of collaborative programs, such as internships, training sessions, and curriculum co-design, in enhancing dual-competency skills.

By addressing these areas, future research can provide deeper insights and actionable recommendations to enhance the development and effectiveness of vocational teacher strategies, ensuring their alignment with evolving educational and workforce demands.

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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	Dr.Yuan Guanghua	Professor, Vice president Heyuan Polytechnic
2	Dr.Qiu Yuan	Professor, Educational Management, Director, Teacher Development Center Heyuan Polytechnic
3	Dr.Phatchareephorn Bangkheow	Assistant Professor, Head of Teacher Professional Group
4	Dr.Phadet Kakham	Assistant Professor, Educational Management for Sustainable Development Program
5	Dr.Touchakorn Suwancharas	Associate Professor, Lecturer in the Graduate Dipploma Program in Teaching Profession, The Graduate School, Bansomdejchaopraya Rajabhat University

List of Specialists Invitation for Interview

Name of Experts	Position/Office
1. Professor Dr.Qiu Yuan	Ph.D. in Educational Management, Head of Quality Management Department Heyuan Polytechnic
2. Professor Yuan Guanghua	Ph.D. in Educational Management, Vice President of Heyuan Polytechnic
3. Associate Professor Dr.Xiao Hailin	Ph.D. in Computer Science, Teaching Quality Assurance Center of Shenzhen Polytechnic
4. Professor Dr.Zhang Xisheng	PhD. in Educational Economics and Management, Director of the Teacher Development Center, Shenzhen Polytechnic
5. Professor Dr.Zhou Xiaoping	PhD. in Management, Dean of the Continuing Education College of Guangdong Industry Polytechnic College
6. Associate Professor Dr.Feng Jianbo	PhD. in Career and Technical Education, Deputy Director of the Teacher Development Center, Guangdong Industry Polytechnic College
7. Professor Dr.Zhang Xiaoping	PhD. in Management, Director of the Teacher Development Center, Shenzhen Institute of Information Technology
8. Dr.Chen Xiaoping	PhD. in Educational Management, Teacher Development Center Teacher, Shenzhen Institute of Information Technology
9. Associate Professor Huang Silin	Teacher Development Center Teacher, Shanwei Institute Technology
10. Associate Professor Dr.Liang Dan	Director of the Teacher Development Center

List of Specialists Invitation for Focus Group

Name of Experts	Position/Office
1. Professor Dr.Qiu Yuan	Ph.D. in Educational Management, Head of Quality Management Department Heyuan Polytechnic
2. Professor Yuan Guanghua	Ph.D. in Educational Management, Vice President of Heyuan Polytechnic
3. Associate Professor Dr.Xiao Hailin	Ph.D. in Computer Science, Teaching Quality Assurance Center of Shenzhen Polytechnic
4. Professor Dr.Zhang Xisheng	PhD. in Educational Economics and Management, Director of the Teacher Development Center, Shenzhen Polytechnic
5. Professor Dr.Zhou Xiaoping	PhD. in Management, Dean of the Continuing Education College of Guangdong Industry Polytechnic College
6. Associate Professor Dr.Feng Jianbo	PhD. in Career and Technical Education, Deputy Director of the Teacher Development Center, Guangdong Industry Polytechnic College
7. Professor Dr.Zhang Xiaoping	PhD. in Management, Director of the Teacher Development Center, Shenzhen Institute of Information Technology
8. Dr.Chen Xiaoping	PhD. in Educational Management, Teacher Development Center Teacher, Shenzhen Institute of Information Technology
9. Associate Professor Huang Silin	Teacher Development Center Teacher, Shanwei Institute Technology
10. Associate Professor Dr.Liang Dan	Director of the Teacher Development Center

List of Specialists Invitation for Strategies Evaluation

No.	Name	Position
1	Dr.Yuan Guanghua	Professor, Vice president Heyuan Polytechnic
2	Dr.Qiu Yuan	Professor, Educational Management, Director, Teacher Development Center Heyuan Polytechnic
3	Dr.Phatchareephorn Bangkheow	Assistant Professor, Head of Teacher Professional Group
4	Dr.Phadet Kakham	Assistant Professor, Educational Management for Sustainable Development Program
5	Dr.Touchakorn Suwancharas	Associate Professor, Lecturer in the Graduate Dipploma Program in Teaching Profession, The Graduate School, Bansomdejchaopraya Rajabhat University

Appendix B

Official Letter

MHESI 0643.14/ 1491

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

26 July 2024

Subject: Invitation to validate research instrument

Dear Associate Professor Dr.Yuan Guanghua Ph.D. Vice president Heyuan Polytechnic

      Mrs. Huang Liqiong is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Strategies a high - quality professional of vocational college teachers in New Era".

      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

(Asst. Prof. Dr.Tanaput Chancharoen)
Vice Dean of Graduate School for Dean of Graduate School

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10600

26 July 2024

Subject: Invitation to validate research instrument

Dear   Associate Professor Dr.Qiu Yuan Ph.D. Educational Management, Director, Teacher Development Center Heyuan Polytechnic

    Mrs. Huang Liqiong is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Strategies a high - quality professional of vocational college teachers in New Era".

    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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Thonburi, Bangkok, Thailand
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26 July 2024

Subject: Invitation to validate research instrument

Dear   Assist. Prof. Dr Phatchareephorn Bangkheow Head of Teacher Professional Group

   Mrs. Huang Liqiong is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Strategies a high-quality professional of vocational college teachers in New Era".

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

26 July 2024

Subject: Invitation to validate research instrument

Dear Assist.Prof.Dr.Phadet Kakham Ph.D. Educational Management for Sustainable Development Program

        Mrs. Huang Liqiong is a Doctoral student in Educational Management for Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Development of Strategies a high - quality professional of vocational college teachers in New Era".

        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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Thonburi, Bangkok, Thailand
10600

26 July 2024

Subject: Invitation to validate research instrument

Dear   Assoc. Prof. Dr. Touchakorn Suwancharas , Lecturer in the Graduate Diploma
             Program in Teaching Profession, The Graduate School, Bansomdejchaopraya
             Rajabhat University

         Mrs. Huang Liqiong is a Doctoral student in Educational Management for
Sustainable Development of Bansomdejchaopraya Rajabhat University. She is undertaking
research entitled "Development of Strategies a high – quality professional of vocational college
teachers in New Era".

         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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16 September, 2024

Subject   Invitation to join an interview as an expert
Dear   Professor Qiu Yuan Prof. Educational Management,Head of Quality Management
Department Heyuan Polytechnic.
Attachment   Interview Form

Ms. Huang Liqiong is a graduate student in the Doctor of Philosophy Program in Educational Management for Sustainable Development program of Bansomdejchaopraya Rajabhat University. She is conducting research entitled " Development of Strategies a high - quality professional of vocational college teachers in New Era" under the supervision of the following thesis advisory committee:

1. Prof.Dr.Narongwat Mingmit   Major Advisor
2. Dr.Thanida Sujarittham   Co-Advisor
3. Assoc.Prof.Dr.Sarayut Setthakachorn   Co-Advisor

The thesis advisory committee, along with the student, recognizes your expertise in this field. As such, the graduate school would like to formally invite you to participate in an interview as an expert, where your insights and suggestions will greatly contribute to the advancement of the student's research.

Thank you for considering this invitation.

Yours faithfully

(Asst. Prof. Dr.Tanaput Chancharoen)
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Thonburi, Bangkok, Thailand
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16 September, 2024

Subject   Invitation to join an interview as an expert

Dear   Professor Yuan Guanghua Prof. Educational Management,Vice President of Heyuan Polytechnic

Attachment   Interview Form

          Ms. Huang Liqiong is a graduate student in the Doctor of Philosophy Program in Educational Management for Sustainable Development program of Bansomdejchaopraya Rajabhat University. She is conducting research entitled " Development of Strategies a high - quality professional of vocational college teachers in New Era" under the supervision of the following thesis advisory committee:

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

16 September, 2024

Subject   Invitation to join an interview as an expert

Dear   Associate Professor Dr.Xiao Hailin Ph.D. in Computer Science, Teaching Quality Assurance Center of ShenZhen Polytechnic

Attachment   Interview Form

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16 September, 2024

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16 September, 2024

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16 September, 2024

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Dear   Associate Professor .Huang Silin Teacher Development Center Teacher,Shanwei
institute Technology

Attachment   Interview Form

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16 October, 2024

Subject   Invitation to join a focus group discussion as an expert
Dear   Professor Qiu Yuan Prof. Educational Management,Head of Quality Management
Department Heyuan Polytechnic.

Attachment   A focus group discussion schedule

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16 October, 2024

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20 November, 2024

Subject   Request for evaluation of strategy
Dear   Professor Qiu Yuan Prof. Educational Management,Head of Quality Management
Department Heyuan Polytechnic.
Attachment   Evaluation sheets

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       Management strategies to promote the Development of Strategies a high – quality
professional of vocational college teachers in New Era is the focus of this research.Knowing you
have experience in this field,the researcher would like to ask for your assistance in evaluating
the strategies. Researchers are eager to hear your suggestions to promoting a high – quality
professional of vocational college teachers development.Thank you very much for your positive
response.

       Thank you for considering this invitation.

Yours faithfully

(Asst. Prof. Dr.Tanaput Chancharoen)
Vice Dean of Graduate School for Dean of Graduate School

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

20 November, 2024

Subject	Request for evaluation of strategy
Dear	Professor Yuan Guanghua Prof. Educational Management,Vice President of Heyuan
Polytechnic	
Attachment	Evaluation sheets

Ms. Huang Liqiong is a graduate student in the Doctor of Philosophy Program in Educational Management for Sustainable Development program of Bansomdejchaopraya Rajabhat University. She is conducting research entitled " Development of Strategies a high - quality professional of vocational college teachers in New Era" under the supervision of the following thesis advisory committee:

1. Prof.Dr.Narongwat Mingmit	Major Advisor
2. Dr.Thanida Sujarittham	Co-Advisor
3. Assoc.Prof.Dr.Sarayut Setthakachorn	Co-Advisor

Management strategies to promote the Development of Strategies a high - quality professional of vocational college teachers in New Era is the focus of this research.Knowing you have experience in this field,the researcher would like to ask for your assistance in evaluating the strategies. Researchers are eager to hear your suggestions to promoting a high - quality professional of vocational college teachers development.Thank you very much for your positive response.

Thank you for considering this invitation.

Yours faithfully

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Thonburi, Bangkok, Thailand
10600

·

20 November, 2024

Subject   Request for evaluation of strategy

Dear   Assoc. Prof. Dr. Touchakorn Suwancharas,Lecturer in the Graduate Diploma
Program in Teaching Profession, The Graduate School, Bansomdejchaopraya Rajabhat University

Attachment   Evaluation sheets

        Ms. Huang Liqiong is a graduate student in the Doctor of Philosophy Program in
Educational Management for Sustainable Development program of Bansomdejchaopraya
Rajabhat University. She is conducting research entitled " Development of Strategies a high
- quality professional of vocational college teachers in New Era" under the supervision
of the following thesis advisory committee:

        1. Prof.Dr.Narongwat Mingmit   Major Advisor
        2. Dr.Thanida Sujarittham   Co-Advisor
        3. Assoc.Prof.Dr.Sarayut Setthakachorn   Co-Advisor

        Management strategies to promote the Development of Strategies a high - quality
professional of vocational college teachers in New Era is the focus of this research.Knowing you
have experience in this field,the researcher would like to ask for your assistance in evaluating
the strategies. Researchers are eager to hear your suggestions to promoting a high - quality
professional of vocational college teachers development.Thank you very much for your positive
response.

        Thank you for considering this invitation.

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Rajabhat University
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Itsaraphap Road, Hiranruchi,
Thonburi, Bangkok, Thailand
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20 November, 2024

Subject   Request for evaluation of strategy
Dear   .Assist. Prof. Dr Phatchareephorn Bangkheow,Head of Teacher Professional
Group,The Graduate School, Bansomdejchaopraya Rajabhat University .
Attachment   Evaluation sheets

       Ms. Huang Liqiong is a graduate student in the Doctor of Philosophy Program in Educational Management for Sustainable Development program of Bansomdejchaopraya Rajabhat University. She is conducting research entitled " Development of Strategies a high - quality professional of vocational college teachers in New Era" under the supervision of the following thesis advisory committee:

      1. Prof.Dr.Narongwat Mingmit   Major Advisor
      2. Dr.Thanida Sujarittham   Co-Advisor
      3. Assoc.Prof.Dr.Sarayut Setthakachorn   Co-Advisor

      Management strategies to promote the Development of Strategies a high - quality professional of vocational college teachers in New Era is the focus of this research.Knowing you have experience in this field,the researcher would like to ask for your assistance in evaluating the strategies. Researchers are eager to hear your suggestions to promoting a high - quality professional of vocational college teachers development.Thank you very much for your positive response.

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Itsaraphap Road, Hiranruchi,
Thonburi, Bangkok, Thailand
10600

20 November, 2024

Subject   Request for evaluation of strategy
Dear   Assist.Prof.Dr.Phadet Kakhama ,Ph.D. Educational Management for Sustainable
Development Progra,The Graduate School, Bansomdejchaopraya Rajabhat University .
Attachment   Evaluation sheets

      Ms. Huang Liqiong is a graduate student in the Doctor of Philosophy Program in Educational Management for Sustainable Development program of Bansomdejchaopraya Rajabhat University. She is conducting research entitled " Development of Strategies a high - quality professional of vocational college teachers in New Era" under the supervision of the following thesis advisory committee:

     1. Prof.Dr.Narongwat Mingmit   Major Advisor
     2. Dr.Thanida Sujarittham   Co-Advisor
     3. Assoc.Prof.Dr.Sarayut Setthakachorn   Co-Advisor

      Management strategies to promote the Development of Strategies a high - quality professional of vocational college teachers in New Era is the focus of this research.Knowing you have experience in this field,the researcher would like to ask for your assistance in evaluating the strategies. Researchers are eager to hear your suggestions to promoting a high - quality professional of vocational college teachers development.Thank you very much for your positive response.

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Appendix C

Research Instrument

Questionnaire of the conditions, problems and factors related affecting the development of teachers conducted investigations on higher vocational college teachers

Direction:

    1. This questionnaire would like to study about the current situation and factors related affecting in the teacher development of higher vocational college teachers. It was as part of a doctoral dissertation of Educational Management for Sustainable Development in Bansomdejchaopraya Rajabhat University, Thailand. that research objectives including:

    1) To study the conditions, problems and factors related to the development of strategies. High-quality vocational teacher professionals in the new era.

    2) To create a strategy Professional development of high -quality vocational teachers in the new era.

    3) To evaluate the appropriateness of the strategy. Professional development of high-quality vocational teachers in the new era Area of research.

    2. This questionnaire was designed for vocational college teachers to review. It was divided into 4 parts 40 sub-assessment items, and recommendations.

    3. Your comments on answering the questionnaire will be useful for the create a strategy Professional development of high -quality vocational teachers in the new era. 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 questionnaire.

                          Mrs. Huang Liqiong

                          Bansomdejchaopraya Rajabhat University

Part I: Information on the identity of teachers

1.The area of your school is:

☐ Pearl River Triangle District ☐ Northwest of Guangdong

2. The type of school you teach is:

☐ National "Double High" high school

☐ Provincial high -level vocational college

☐ General vocational school

3.Your identity is:

☐ Ordinary teacher ☐ Ideological teacher

☐ Teaching manager

4.Gender:

☐ male ☐ female

5.Your teachings are:

☐ 1-3years ☐ 4-15years

☐ 16-25years ☐ More than 25 years

Part II: Questionnaire of current situations development of a high-quality professional of vocational college teachers in New Era

Direction: Please read the following items carefully (questions 1-40) and consider to choose the one of five level that is based on your actual situation according to the qualifications in current situations section, and choose the one of five level that you should be or have for promoting your teacher development in Expected situations, details as belows:

1 = lowest level,   2 = low level,

3 = moderate level,   4 = high level,

5 = highest level

Professional Teacher Development	Current situations					Expected situations				
	5	4	3	2	1	5	4	3	2	1
Life development										
1. You think "Teaching and educating people" is college teachers pursuit and career.										
2. You always have an equal dialogue with students.										
3. You always arrive at the teaching place early to prepare for class.										
4. You think the most important value that students form in school is egalitarianism.										
5. You never been complained by students and parents.										
6. You felt the pressure last year.										
7. You haven't chronic diseases such as hypertrophic, hypertension, and cervical spine hyperplasia and so on Diseases.										
8. You haven't Stay up late, smoke, alcohol, sedentary and other habits.										
9. You learned professional knowledge, new technologies, new methods, etc.										
10. You Formulated a long -term development plan for career.										
11. You has received won the title of "Excellent Teacher" in the past three years.										
12. You very happy that I am a teacher in a higher vocational college.										

Professional Teacher Development	Current situations					Expected situations				
	5	4	3	2	1	5	4	3	2	1
Professional development										
1. You familiar with the "education training" combined with large unit teaching design.										
2. You can Professional use of project teaching, task -driven teaching, case teaching and other teaching methods.										
3. You can Proficient in writing teaching and research papers, typical cases, lesson plans										
4. You can proficient in developing mixed online and offline teaching.										
5. You also hold a professional skill level certificate in addition to your teaching certificate.										
6. You have participated in the teaching competition, science and technology competition, professional skills competition and so on.										
7. You have the training qualification certificate of the professional vocational skill level certificate.										
8. Your teaching quality was rated as excellent by the school last year.										
9. You have mastered the advanced theories, research methods and research tools to carry out research projects.										
10. You have the ability to use SPSS software to process, count and analyze data.										

Professional Teacher Development	Current situations					Expected situations				
	5	4	3	2	1	5	4	3	2	1
11. You have published papers, monographs, patents, survey reports, etc. last year.										
12. The transformation of your teaching and scientific research results has produced good economic or social benefits.										
Social development										
1. You have host or participate in social groups, public welfare organizations, academic organizations.										
2. You have attended lectures, reviews, exchanges, and other activities outside?										
3. You have undertaken any vocational courses or skills training business on or off campus last year?										
4. You have served as a class teacher, counselor, student club instructor, or other student work last year?										
5. You have guide students to participate in skills competitions,technical skills training, club activities, etc. last year?										
6. You have provide guidance and help to students in their life, psychology, or further studies and employment?										
Organize development										
1. Teachers have full rights to participate, know and supervise the affairs of higher vocational colleges.										

Professional Teacher Development	Current situations					Expected situations				
	5	4	3	2	1	5	4	3	2	1
2. Vocational colleges, from leaders to grassroots managers can respect teachers and value education.										
3. The distribution of teaching remuneration, performance, and benefits in higher vocational colleges is tilted towards frontline teachers.										
4. You think the current job title evaluation is fair and just.										
5. Society, parents and students are increasingly recognizing vocational education.										
6. Vocational colleges guide and help teachers to carry out career development planning.										
7. Vocational colleges attach great importance to and maintain the mental health of teachers.										
8. Vocational colleges have developed a "step-by-step" training plan for teacher development.										
9. Vocational colleges should organize professional learning and training for teachers at least once a year.										
10. You are satisfied with the school's support and funding for teacher development.										

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

Interview Form
The Strategies a high-quality professional development
of vocational college teachers in the New Era
(For Experts)

Direction:

1. This interview form would like to study about the factors promoting development a high-quality professional of higher vocational college teachers in the New era. It was as part of a doctoral dissertation of Educational Management for Sustainable Development in Bansomdejchaopraya Rajabhat University, Thailand. that research objectives including:

1) To study the conditions, problems and factors related to the development of strategies. High-quality vocational teacher professionals in the new era

2) To create a strategy Professional development of high -quality vocational teachers in the new era

3) To evaluate the appropriateness of the strategy. Professional development of high -quality vocational teachers in the new era Area of research.

2. This Interview form was designed for experts to review. It was divided into 2 part 6 questions and recommendations.

3. Your comments on interview form will be useful for the development of strategies a high-quality professional of vocational college teachers in the New era. 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 interview form.

Mrs. Huang Liqiong

Bansomdejchaopraya Rajabhat University

Part I: Personal Information

       Name: ....

       Position/ Position: ....

       Name of school /institution: ....

Part II: The strategies a high-quality professional of vocational college teachers in the New era

About Personal factor
1. What qualities do you think higher vocational teachers in the new era should possess? ....
2. What important factors do you think are included in the life development of high-quality vocational teachers in the new era? ....
3. Is professional development important in the high-quality development of   vocational college teachers in the new era? What aspects should it include? ....
About external environmental factors
4. What do you think vocational college teachers should do in the social development level?.. ....

5．What do you think are the main challenges facing the development of higher vocational college teachers? How do you plan to overcome these difficulties?

……………………………………………………………………………… ………………………………………………………………

……………………………………………………………………………… ………………………………………………………………

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6．What improvements do you think vocational college can make to enhance the development of high-quality professional talent among vocational college l teachers in the new era?

……………………………………………………………………………… ………………………………………………………………

……………………………………………………………………………… ………………………………………………………………

……………………………………………………………………… ……………………………………………………………

Suggestion:

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……

Assessment form for validity of questionnaire
of the conditions, problems and factors related affecting the
development of teachers conducted investigations on higher
vocational college teachers

Direction:

1. This assessment form for validity of questionnaire would like to study about the current situation and factors related affecting in the teacher development of higher vocational college teachers. It was as part of a doctoral dissertation of Educational Management for Sustainable Development in Bansomdejchaopraya Rajabhat University, Thailand. that research objectives including:

1) To study the conditions, problems and factors related to the development of strategies. High-quality vocational teacher professionals in the new era.

2) To create a strategy Professional development of high -quality vocational teachers in the new era.

3) To evaluate the appropriateness of the strategy. Professional development of high-quality vocational teachers in the new era Area of research.

2. This questionnaire was designed for vocational college teachers to review. It was divided into 4 parts 40 sub-assessment items, and recommendations.

3. Your comments on answering the questionnaire will be useful for the create a strategy Professional development of high -quality vocational teachers in the new era. 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 assessment.

<div align="right">

Mrs. Huang Liqiong
Bansomdejchaopraya Rajabhat University

</div>

Part I: Information on the identity of teachers

1.The area of your school is:

☐ Pearl River Triangle District   ☐ Northwest of Guangdong

2. The type of school you teach is:

☐ National "Double High" high school

☐ Provincial high -level vocational college

☐ General vocational school

3.Your identity is:

☐ Ordinary teacher   ☐ Ideological teacher

☐ Teaching manager

4.Gender:

☐ male   ☐ female

5.Your teachings are:

☐ 1-3years   ☐ 4-15years

☐ 16-25years   ☐ More than 25 years

Part II: This assessment form for validity of questionnaire of current situations development of a high-quality professional of vocational college teachers in New Era

Direction: Please consider the consistency of the factors of the current situation and factors. 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."

Factors	Questions	Assessment result			Remarks
		+1	0	-1	
Life development	1. You think "Teaching and educating people" is college teachers pursuit and career.				
	2. You always have an equal dialogue with students.				
	3. You always arrive at the teaching place early to prepare for class.				
	4. You think the most important value that students form in school is egalitarianism.				
	5. You never been complained by students and parents.				
	6. You felt the pressure last year.				
	7. You haven't chronic diseases such as hypertrophic, hypertension, and cervical spine hyperplasia and so on Diseases.				
	8. You haven't Stay up late, smoke, alcohol, sedentary and other habits.				
	9. You learned professional knowledge, new technologies, new methods, etc.				
	10. You Formulated a long -term development plan for career.				
	11. You has received won the title of "Excellent Teacher" in the past three years.				
	12. You very happy that I am a teacher in a higher vocational college.				

Factors	Questions	Assessment result			Remarks
		+1	0	-1	
Professional development	1. You familiar with the "education training" combined with large unit teaching design.				
	2. You can Professional use of project teaching, task -driven teaching, case teaching and other teaching methods.				
	3. You can Proficient in writing teaching and research papers, typical cases, lesson plans.				
	4. You can proficient in developing mixed online and offline teaching.				
	5. You also hold a professional skill level certificate in addition to your teaching certificate.				
	6. You have participated in the teaching competition, science and technology competition, professional skills competition and so on.				
	7. You have the training qualification certificate of the professional vocational skill level certificate.				
	8. Your teaching quality was rated as excellent by the school last year.				
	9. You have mastered the advanced theories, research methods and research tools to carry out research projects.				
	10. You have the ability to use SPSS software to process, count and analyze data.				

Factors	Questions	Assessment result			Remarks
		+1	0	-1	
	11. You have published papers, monographs, patents, survey reports, etc. last year.				
	12. The transformation of your teaching and scientific research results has produced good economic or social benefits.				
Social development	1. You have host or participate in social groups, public welfare organizations, academic organizations.				
	2. You have attended lectures, reviews, exchanges, and other activities outside?				
	3. You have undertaken any vocational courses or skills training business on or off campus last year?				
	4. You have served as a class teacher, counselor, student club instructor, or other student work last year?				
	5. You have guide students to participate in skills competitions, technical skills training, club activities, etc. last year?				
	6. You have provide guidance and help to students in their life, psychology, or further studies and employment?				
Organize development	1. Teachers have full rights to participate, know and supervise the affairs of higher vocational colleges.				

Factors	Questions	Assessment result			Remarks
		+1	0	-1	
	2. Vocational colleges, from leaders to grassroots managers can respect teachers and value education.				
	3. The distribution of teaching remuneration, performance, and benefits in higher vocational colleges is tilted towards frontline teachers.				
	4. You think the current job title evaluation is fair and just.				
	5. Society, parents and students are increasingly recognizing vocational education.				
	6. Vocational colleges guide and help teachers to carry out career development planning.				
	7. Vocational colleges attach great importance to and maintain the mental health of teachers.				
	8. Vocational colleges have developed a "step-by-step" training plan for teacher development.				
	9. Vocational colleges should organize professional learning and training for teachers at least once a year.				
	10. You are satisfied with the school's support and funding for teacher development.				

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

Assessment form for validity of Interview Form the Strategies a high-quality professional of vocational college teachers
in the New Era
(For Experts)

Direction:

1.This assessment form for validity of interview form would like to study about the factors promoting development a high-quality professional of higher vocational college teachers in the New era. It was as part of a doctoral dissertation of Educational Management for Sustainable Development in Bansomdejchaopraya Rajabhat University, Thailand. that research objectives including:

1) To study the conditions, problems and factors related to the development of strategies. High-quality vocational teacher professionals in the new era

2) To create a strategy Professional development of high -quality vocational teachers in the new era

3) To evaluate the appropriateness of the strategy. Professional development of high -quality vocational teachers in the new era Area of research.

2.This assessment form for validity of Interview form was designed for experts to review. It was divided into 2 part 6 questions and recommendations.

3.Your comments on assessment form for validity of interview form will be useful for the development of strategies a high-quality professional of vocational college teachers in the New era. Responding to this interview 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 assessment form for validity.

Mrs. Huang Liqiong

Bansomdejchaopraya Rajabhat University

Part I: Information on the identity of teachers

Name: ……………………………………………………………………………

Position/ Position: …………………………………………………………

Name of school /institution: ……………………………………………

Part II: This assessment form for validity of questionnaire of current situations development of a high-quality professional of vocational college teachers in New Era

Direction: Please consider the consistency of the factors of the current situation and factors. 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."

Factors	Questions	Assessment result			Remarks
		+1	0	-1	
About Personal factor	1. What qualities do you think higher vocational teachers in the new era should possess?				
	2. What important factors do you think are included in the life development of high-quality vocational teachers in the new era?				
	3. Is professional development important in the high-quality development of vocational college teachers in the new era? What aspects should it include?				

Factors	Questions	Assessment result			Remarks
		+1	0	-1	
About external environmental factors	4. What do you think vocational college teachers should do in the social development level?				
	5. What do you think are the main challenges facing the development of higher vocational college teachers? How do you plan to overcome these difficulties?				
	6. What improvements do you think vocational college can make to enhance the development of high-quality professional talent among vocational college l teachers in the new era?				

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

Evaluation questionnaire for the Strategies a high-quality professional of vocational college teachers in the New Era

Instruction:

The tool used to study the high-quality development strategies of teachers in higher vocational colleges in Guangdong Province come from 10 higher vocational teachers in higher vocational colleges in Guangdong Province.

Please consider the questionnaire to evaluate all aspects of strategies for sustainable development of vocational college teacher professional development in Guangdong Province.

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

5 indicates the highest adaptability and feasibility.

4 indicates high adaptability and feasibility.

3 indicates average adaptability and feasibility.

2 indicates low adaptability and feasibility;

1 indicates the lowest adaptability and feasibility.

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
Strategies of Enhance dual-competency skills through industry-academia collaboration to align teaching with workforce demands										
1. Promote collaborative partnerships between vocational institutions and industry leaders.										
2. Integrate industry-relevant skills and knowledge into vocational education curricula.										
3. Provide vocational teachers with industry internships or exchange opportunities.										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
4. Offer customized training programs focusing on cutting-edge technologies and competencies.										
5. Organize guest lectures and workshops by industry professionals.										
6. Equip teachers for dual roles, balancing academic and industry-related training.										
7. Encourage certification programs in industry-relevant fields for vocational teachers.										
8. Establish feedback mechanisms with industry stakeholders for continuous program refinement.										
Strategies of Provide structured and long-term career development pathways to improve teacher satisfaction and growth										
1. Design individualized career development plans.										
2. Establish mentorship programs.										
3. Create leadership development opportunities.										
4. Promote professional learning communities.										
5. Provide access to continuing education.										
6. Recognize and reward achievements.										
7. Build clear career progression pathways.										
8. Allocate dedicated time for professional growth.										
9. Integrate technology for skill										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
enhancement.										
10. Monitor and evaluate career development efforts.										
Strategies of Implement stress management and wellness programs to address teacher burnout and improve work-life balance										
1. Conduct sessions on stress management, mindfulness, and healthy lifestyle habits.										
2. Establish professional counseling or employee assistance programs for teachers.										
3. Offer gym memberships, yoga classes, or group exercise programs within or outside the institution.										
4. Streamline administrative tasks and optimize scheduling to allow teachers to focus on teaching and personal well-being.										
5. Provide options like flexible hours or hybrid teaching models to accommodate teachers' needs.										
6. Create teacher networks for sharing experiences, offering support, and discussing challenges.										
7. Reward teachers who demonstrate balanced work-life practices through acknowledgment or incentives.										
8. Design dedicated relaxation or recreation										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
areas for teachers to unwind and recharge.										
9. Offer comprehensive health coverage, including mental health services and preventive care benefits.										
10. Plan off-site retreats for teachers to relax, network, and reflect on their personal and professional growth.										
Strategies of Increase participation in skills competitions, mentorship, and public welfare programs to boost social engagement										
1. Host internal competitions to prepare teachers and students for larger skills competitions.										
2. Pair experienced teachers with new or less experienced teachers to provide guidance and support.										
3. Partner with public welfare organizations and NGOs to involve teachers in community-based projects.										
4. Offer rewards such as certificates, bonuses, or professional development points for participation in events.										
5. Create campaigns to inform teachers about the importance of skills competitions and public engagement.										
6. Train teachers in mentorship techniques to prepare them for effective guidance roles.										
7. Adjust teachers' schedules to allow time										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
for mentorship and participation in public welfare activities.										
8. Publicize successes in institutional newsletters, websites, or events to encourage more participation.										
9. Form teams comprising teachers and students to work together on skills competitions or community projects.										
10. Integrate contributions to mentorship, competitions, and public welfare as a metric in teacher evaluations.										
Strategies of Strengthen institutional recognition systems such as awards and "Excellent Teacher" titles to motivate teachers										
1. Establish awards like "Excellent Teacher," "Innovative Educator," and "Mentor of the Year" to recognize various contributions.										
2. Organize formal events to celebrate and honor award recipients in front of peers and students.										
3. Ensure clear and fair guidelines for award eligibility to build trust and credibility.										
4. Offer financial rewards, professional development opportunities, or promotions as part of the awards.										
5. Share award recipients' stories on institutional websites, newsletters, and										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
social media platforms.										
6. Allow students to nominate teachers for certain awards, enhancing teacher-student relationships.										
7. Enable teachers to nominate and vote for their colleagues for specific awards.										
8. Tie awards and recognitions to tangible career benefits, such as promotions or leadership roles.										
9. Develop a virtual space to display awardees' achievements permanently, accessible by all stakeholders.										
10. Include categories for community service, mentorship, and innovation to acknowledge diverse teacher efforts.										
Strategies of Improve research support by providing funding, platforms, and tools for teachers to publish and showcase achievements										
1. Provide annual budgets for teachers to conduct research and publish their findings.										
2. Create competitive grant programs for innovative research projects aligned with institutional goals.										
3. Collaborate with reputable journals to facilitate teacher publications and reduce publication costs.										
4. Offer subscriptions to online academic libraries and databases for literature										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
reviews and citation access.										
5. Pair experienced researchers with novice teachers to guide them through research and publication processes.										
6. Conduct workshops on research methodologies, writing for publication, and effective presentation skills.										
7. Develop an online platform for teachers to share research, collaborate, and receive feedback within the institution.										
8. Establish awards and recognition programs for impactful research, including monetary rewards and career advancement.										
9. Provide reduced teaching loads or sabbaticals to teachers actively engaged in research projects.										
10. Sponsor teacher attendance and presentations at national and international academic conferences.										
Strategies to Reduce Administrative Workload and Improve Professional Growth and Teaching Quality										
1. Implement digital tools and software to automate routine administrative tasks like attendance and grading.										
2. Assign non-teaching tasks, such as event coordination, to dedicated administrative staff.										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
3. Reduce paperwork by digitizing processes like performance appraisals and course planning.										
4. Hire teaching assistants to support teachers with classroom management and preparation tasks.										
5. Use advanced scheduling tools to create balanced workloads and minimize unnecessary meetings.										
6. Define specific boundaries between teaching and administrative responsibilities.										
7. Combine various reports into a single, simplified format to save time.										
8. Conduct workshops on effective time management to help teachers prioritize their tasks.										
9. Create collaborative platforms where teachers can share resources and distribute workloads.										
10. Regularly evaluate and adjust the distribution of administrative responsibilities to ensure equity.										
Strategies of Promote the adoption of digital tools and modern technologies in teaching practices and professional learning										
1. Incorporate learning management systems (LMS), virtual classrooms, and online resources in teaching plans.										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
2. Organize workshops and certifications to enhance teachers' digital literacy and proficiency in modern technologies.										
3. Implement a mix of traditional and digital teaching methods to create dynamic learning environments.										
4. Introduce simulation-based tools for practical training, such as virtual labs and 3D modeling platforms.										
5. Provide funding for teachers to acquire necessary devices, software, and technology subscriptions.										
6. Create forums for teachers to share experiences and innovative methods of integrating technology into teaching.										
7. Partner with educational technology companies to access tools, training, and support at discounted rates.										
8. Train teachers to create multimedia learning materials, including videos, podcasts, and interactive modules.										
9. Regularly assess new technologies, such as AI and VR, for potential integration into teaching practices.										
10. Establish dedicated IT support teams to help teachers with technical issues and troubleshooting.										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
Strategies of Establish step-by-step structured training programs to ensure continuous professional growth										
1. Conduct regular surveys and skill gap analyses to identify areas where teachers require additional training.										
2. Create tailored development roadmaps for each teacher, focusing on their specific goals and challenges.										
3. Offer bite-sized, focused training modules that cover diverse topics like pedagogy, technology, and management.										
4. Pair teachers with experienced mentors to provide guidance, feedback, and career advice.										
5. Design certification programs that recognize the completion of training milestones and boost credentials.										
6. Schedule regular skill-building workshops to keep teachers updated with industry trends and teaching innovations.										
7. Provide access to online training resources, webinars, and virtual classes for flexible learning options.										
8. Establish platforms where teachers can share experiences, challenges, and solutions in professional learning communities.										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
9. Regularly measure the outcomes of training programs through teacher performance evaluations and feedback.										
10. Advocate for sustained financial support to ensure uninterrupted access to high-quality professional development programs.										
Strategies of Reform job title evaluation systems to ensure fairness and boost teacher satisfaction										
1. Define clear, objective, and publicly accessible standards for evaluating teacher performance.										
2. Incorporate a range of metrics, including teaching quality, research output, and community engagement.										
3. Form unbiased committees with representatives from teachers, administrators, and external experts.										
4. Train evaluators to ensure consistency, fairness, and adherence to the evaluation framework.										
5. Implement a systematic schedule for evaluations, ensuring consistent and timely feedback.										
6. Encourage teachers to participate in self-assessment processes to reflect on their achievements and goals.										

Assessment checklist	Suitability									
	Adaptability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
7. Use peer and student evaluations as supplementary inputs to provide a holistic view of performance.										
8. Establish formal channels for teachers to contest evaluation outcomes or provide additional evidence.										
9. Link evaluation outcomes to promotions, pay raises, and professional development opportunities.										
10. Provide detailed and constructive feedback to teachers after evaluations, highlighting strengths and areas for improvement.										

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

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 Development of Strategies a high - quality professional of vocational college teachers in New Era.

Section I: Questionnaire

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
Life development								
1	You think "Teaching and educating people" is college teachers pursuit and career	1	1	1	1	1	1.00	consistent
2	You always have an equal dialogue with students.	1	1	1	1	1	1.00	consistent
3	You always arrive at the teaching place early to prepare for class.	1	1	1	1	1	1.00	consistent
4	You think the most important value that students form in school is egalitarianism.	1	1	1	1	1	1.00	consistent
5	You never been complained by students and parents.	1	1	1	1	1	1.00	consistent
6	You felt the pressure last year.	1	1	1	1	1	1.00	consistent
7	You haven't chronic diseases such as hypertrophic, hypertension, and cervical spine hyperplasia and so on Diseases.	1	1	1	1	1	1.00	consistent
8	You haven't Stay up late, smoke, alcohol, sedentary and other habits.	1	1	1	1	1	1.00	consistent
9	You learned professional knowledge, new technologies, new methods, etc.	1	1	1	1	1	1.00	consistent

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
10	You Formulated a long -term development plan for career.	1	1	1	1	1	1.00	consistent
11	You has received won the title of "Excellent Teacher" in the past three years.	1	1	1	1	1	1.00	consistent
12	You very happy that I am a teacher in a higher vocational college.	1	1	1	1	1	1.00	consistent
Professional development								
1	You familiar with the "education training" combined with large unit teaching design.	1	1	1	1	1	1.00	consistent
2	You can Professional use of project teaching, task -driven teaching, case teaching and other teaching methods.	1	1	1	1	1	1.00	consistent
3	You can Proficient in writing teaching and research papers, typical cases, lesson plans.	1	1	1	1	1	1.00	consistent
4	You can proficient in developing mixed online and offline teaching.	1	1	1	1	1	1.00	consistent
5	You also hold a professional skill level certificate in addition to your teaching certificate.	1	1	1	1	1	1.00	consistent
6	You have participated in the teaching competition, science and technology competition, professional skills competition and so on.	1	1	1	1	1	1.00	consistent
7	You have the training qualification certificate of the professional vocational	1	1	1	1	1	1.00	consistent

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
	skill level certificate.							
8	Your teaching quality was rated as excellent by the school last year.	1	1	1	1	1	1.00	consistent
9	You have mastered the advanced theories, research methods and research tools to carry out research projects.	1	1	1	1	1	1.00	consistent
10	You have the ability to use SPSS software to process, count and analyze data.	1	1	1	1	1	1.00	consistent
11	You have published papers, monographs, patents, survey reports, etc. last year.	1	1	1	1	1	1.00	consistent
12	The transformation of your teaching and scientific research results has produced good economic or social benefits.	1	1	1	1	1	1.00	consistent
Social development								
1	You have host or participate in social groups, public welfare organizations, academic organizations.	1	1	1	1	1	1.00	consistent
2	You have attended lectures, reviews, exchanges, and other activities outside?	1	1	1	1	1	1.00	consistent
3	You have undertaken any vocational courses or skills training business on or off campus last year?	1	1	1	1	1	1.00	consistent
4	You have served as a class teacher, counselor, student club instructor, or other student work last year?	1	1	1	1	1	1.00	consistent
5	You have guide students to participate	1	1	1	1	1	1.00	consistent

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
	in skills competitions, technical skills training, club activities, etc. last year?							
6	You have provided guidance and help to students in their life, psychology, or further studies and employment?	1	1	1	1	1	1.00	consistent
Organize development								
1	Teachers have full rights to participate, know and supervise the affairs of higher vocational colleges.	1	1	1	1	1	1.00	consistent
2	Vocational colleges, from leaders to grassroots managers can respect teachers and value education.	1	1	1	1	1	1.00	consistent
3	The distribution of teaching remuneration, performance, and benefits in higher vocational colleges is tilted towards frontline teachers.	1	1	1	1	1	1.00	consistent
4	You think the current job title evaluation is fair and just.	1	1	1	1	1	1.00	consistent
5	Society, parents and students are increasingly recognizing vocational education.	1	1	1	1	1	1.00	consistent
6	Vocational colleges guide and help teachers to carry out career development planning.	1	1	1	1	1	1.00	consistent
7	Vocational colleges attach great importance to and maintain the mental health of teachers.	1	1	1	1	1	1.00	consistent
8	Vocational colleges have developed a	1	1	1	1	1	1.00	consistent

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
	"step-by-step" training plan for teacher development.							
9	Vocational colleges should organize professional learning and training for teachers at least once a year.	1	1	1	1	1	1.00	consistent
10	You are satisfied with the school's support and funding for teacher development.	1	1	1	1	1	1.00	consistent

Section II: Questionnaire

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
About Personal factor								
1	What qualities do you think higher vocational teachers in the new era should possess?	1	1	1	1	1	1.00	consistent
2	What important factors do you think are included in the life development of high-quality vocational teachers in the new era?	1	1	1	1	1	1.00	consistent
3	Is professional development important in the high-quality development of vocational college teachers in the new era? What aspects should it include?	1	1	1	1	1	1.00	consistent
About Personal factor								
1	What do you think vocational college teachers should do in the social	1	1	1	1	1	1.00	consistent

Clause	Items	Experts					IOC	Conclusion
		1	2	3	4	5		
	development level?							
2	What do you think are the main challenges facing the development of higher vocational college teachers? How do you plan to overcome these difficulties?	1	1	1	1	1	1.00	consistent
3	What improvements do you think vocational college can make to enhance the development of high-quality professional talent among vocational college l teachers in the new era?	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	381	100
	Excluded[a]	0	0
	Total	381	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
.960	.960	40

Interview

1. What qualities do you think higher vocational teachers in the new era should possess?

> **Expert 1:** Higher vocational teachers must excel in dual-competency skills by seamlessly integrating theoretical knowledge with practical expertise to meet both academic and industry standards. Staying updated with evolving industry trends ensures that their teaching remains relevant and impactful. By bridging academia and industry, these teachers can foster a dynamic learning environment.

> **Expert 2:** Adaptability is essential for teachers to stay relevant in a constantly changing educational landscape. A commitment to lifelong learning helps them stay ahead of industry and educational shifts. This mindset also inspires students to embrace continuous learning.

Expert 3: Effective communication is a cornerstone for teachers, enabling them to convey complex concepts in relatable ways. By fostering clear and engaging dialogue, teachers can bridge the gap between theory and practice, ensuring students grasp the practical applications of their knowledge.

Expert 4: Emotional intelligence helps teachers connect deeply with students, understanding their needs and challenges. Skills like patience, empathy, and resilience empower teachers to guide students effectively, building trust and motivation.

Expert 5: Creativity and innovation in teaching methods engage students and keep the learning process exciting. Teachers who embrace new technologies and methodologies can deliver lessons that are both interactive and effective, enhancing learning outcomes.

Expert 6: Ethical professionalism serves as a model for students, promoting integrity and moral responsibility. Teachers must embody and teach values that shape students' character and decision-making abilities.

Expert 7: Understanding industry demands allows teachers to tailor their instruction to real-world applications. By blending pedagogy with industry knowledge, they can prepare students to meet workplace expectations confidently.

Expert 8: Collaboration is key in vocational education, requiring teamwork within institutions and partnerships with industries. Teachers who foster collaborative environments ensure better outcomes for students and organizations alike.

Expert 9: Problem-solving and critical thinking skills are essential to encourage an active, inquiry-based learning atmosphere. These skills empower students to tackle real-world challenges effectively.

Expert 10: A global perspective prepares teachers to educate students for international markets and diverse cultural contexts. This broad outlook helps students thrive in increasingly globalized industries.

2. What important factors do you think are included in the life development of high-quality vocational teachers in the new era?

> **Expert 1:** Work-life balance is critical to maintain the energy and focus necessary for teaching. When teachers can balance professional and personal responsibilities, they can perform at their best in both areas.
>
> **Expert 2:** Physical and mental wellness programs, such as fitness initiatives or counseling services, are crucial. Institutions should foster a supportive environment to help teachers maintain long-term well-being.
>
> **Expert 3:** Recognition for achievements, such as awards or promotions, enhances career satisfaction. Structured pathways for growth ensure that teachers feel valued and motivated to excel.
>
> **Expert 4:** Opportunities for personal growth, such as attending workshops or conferences, allow teachers to expand their skills. These experiences contribute to professional confidence and broaden perspectives.
>
> **Expert 5:** Financial stability is a key factor in job satisfaction, and institutions should provide fair and transparent compensation packages. Teachers who feel financially secure are more focused and dedicated.
>
> **Expert 6:** Mentorship programs help teachers navigate challenges and foster meaningful professional relationships. A strong mentor-mentee system encourages knowledge sharing and guidance.
>
> **Expert 7:** Stress management resources and community-building activities enhance teachers' overall quality of life. A supportive network allows teachers to thrive in their roles.
>
> **Expert 8:** Flexibility in scheduling ensures that teachers can meet personal and family obligations. Institutions that value teachers' personal lives foster a culture of respect and care.
>
> **Expert 9:** Teachers should be encouraged to pursue further education and research opportunities. This enhances their expertise while contributing to their personal and professional fulfillment.

Expert 10: Platforms for self-expression, such as teacher forums or feedback mechanisms, allow teachers to share insights and feel heard. These initiatives build confidence and a sense of belonging.

3. Is professional development important in the high-quality development of vocational college teachers in the new era? What aspects should it include?

Expert 1: Yes, professional development is essential for equipping teachers with modern teaching methods. Continuous upskilling ensures that their practices align with technological and industry advancements.

Expert 2: Industry-specific training programs align educational practices with workforce demands. By staying industry-relevant, teachers prepare students for practical challenges.

Expert 3: Engaging in action research allows teachers to experiment with and refine their teaching techniques. This improves learning outcomes and fosters innovation in the classroom.

Expert 4: Participation in skill competitions and exchanges provides teachers with exposure to global best practices. Such activities enhance their creativity and professional reputation.

Expert 5: Pedagogical enhancement is key for improving content delivery. Teachers who continually refine their instructional methods ensure effective student engagement.

Expert 6: Digital literacy training equips teachers to use advanced tools, enhancing online and hybrid teaching capabilities. These skills are vital in a tech-driven educational landscape.

Expert 7: Networking with industry professionals helps teachers incorporate real-world insights into their teaching. This ensures their lessons remain practical and relevant.

Expert 8: Publishing research and patents boosts teachers' professional standing and inspires students to value innovation. Institutions should support these initiatives with appropriate resources.

Expert 9: Collaborative teaching and peer learning facilitate the exchange of ideas and best practices. This fosters a dynamic and enriching professional environment.

Expert 10: Structured certification programs tailored to vocational educators enhance their credentials and career trajectories. Certifications validate expertise and foster professional growth.

4. What do you think vocational college teachers should do at the social development level?

Expert 1: Teachers should actively participate in community service projects to enhance their social contributions. By sharing their expertise in local communities, they can bridge the gap between education and societal needs, creating a positive impact beyond the classroom.

Expert 2: Collaborating with public welfare organizations allows teachers to design and offer skill-based programs. These initiatives address local needs and inspire students to see the broader purpose of vocational education.

Expert 3: Encouraging student participation in skills competitions helps build community pride and highlights vocational education's value. Teachers play a pivotal role in preparing and motivating students for such events, showcasing their institution's potential.

Expert 4: Teachers acting as mentors guide students toward becoming responsible and ethical contributors to society. This mentoring fosters a culture of giving back and instills a sense of purpose in students.

Expert 5: Participation in academic exchanges and public lectures enhances the visibility of vocational education. Teachers who engage with the public can change perceptions about vocational education, elevating its societal standing.

Expert 6: Hosting workshops and training sessions for local industries fosters partnerships and addresses regional skill shortages. Teachers contribute to regional economic growth by aligning educational outcomes with community needs.

Expert 7: Encouraging students to undertake community-based learning projects develops their social awareness and sense of responsibility. Teachers facilitating such projects ensure students gain hands-on experience while benefiting the community.

Expert 8: Teachers leading awareness campaigns about vocational education help combat misconceptions and broaden its appeal. These campaigns strengthen relationships with parents and other stakeholders.

Expert 9: Supporting students emotionally and socially through guidance and counseling helps create a well-rounded learning experience. Teachers' involvement in students' personal growth ensures better societal outcomes.

Expert 10: Building partnerships with industries and external organizations enhances community engagement. Such collaborations lead to innovative projects that benefit both students and the broader community.

5. What do you think are the main challenges facing the development of higher vocational college teachers? How do you plan to overcome these difficulties?

Expert 1: A major challenge is insufficient funding for teacher development programs. Advocating for increased government support and exploring partnerships with private sectors can alleviate this issue and ensure resources for professional growth.

Expert 2: Limited participation in training programs hinders skill enhancement. Providing incentives, such as career benefits and certifications, can encourage teachers to engage in development activities.

Expert 3: The high administrative workload affects teachers' ability to focus on professional development. Institutions should streamline processes and allocate specific time for growth-oriented activities.

Expert 4: Societal recognition of vocational education remains low, making it challenging to attract talent. Sharing success stories and demonstrating the societal impact of vocational education can improve perceptions.

Expert 5: Unequal access to resources creates disparities among teachers. Institutions should collaborate with industries to offer shared facilities and training opportunities, ensuring equity.

Expert 6: Balancing professional and personal life remains a concern for many teachers. Wellness programs and flexible scheduling can mitigate stress and promote a healthy work-life balance.

Expert 7: Outdated teaching methodologies fail to meet modern student and industry needs. Institutions must invest in continuous professional development to equip teachers with cutting-edge techniques and tools.

Expert 8: Teachers often lack opportunities for impactful research due to limited resources. Institutions should provide funding and support for research projects, encouraging innovation and academic growth.

Expert 9: Addressing mental and physical health challenges is crucial. Offering stress management workshops and wellness initiatives can improve teachers' overall well-being.

Expert 10: Teachers need more recognition for their efforts. Implementing transparent promotion systems and celebrating achievements can enhance motivation and job satisfaction.

6. What improvements do you think vocational colleges can make to enhance the development of high-quality professional talent among vocational college teachers in the new era?

Expert 1: Colleges should develop structured career pathways to ensure professional growth and clarity in promotion opportunities. Such initiatives motivate teachers and align their goals with institutional objectives.

Expert 2: Allocating adequate funding for training programs ensures consistent opportunities for skill enhancement. This investment strengthens teachers' capabilities and improves the overall quality of education.

Expert 3: Establishing professional learning communities promotes knowledge sharing and collaboration among teachers. These communities foster innovation and address common teaching challenges collectively.

Expert 4: Encouraging teachers to participate in research, conferences, and publications enhances their expertise and professional reputation. Institutions must provide logistical and financial support for such activities.

Expert 5: Industry-academia partnerships allow teachers to incorporate real-world insights into their teaching. These collaborations ensure the curriculum remains aligned with market demands.

Expert 6: Training in digital tools and technology integration is essential to modernize teaching practices. Colleges should regularly update digital literacy programs for faculty.

Expert 7: Reducing administrative burdens allows teachers to concentrate on professional development and quality teaching. Streamlining processes and delegating tasks to administrative staff can achieve this balance.

Expert 8: Wellness programs that address both mental and physical health are essential. Colleges must create environments where teachers feel supported and valued.

Expert 9: Recognition programs, such as "Teacher of the Year" awards, motivate and retain talented educators. Acknowledging achievements reinforces teachers' commitment to excellence.

Expert 10: Collaborating on community projects and skill-based programs provides teachers with avenues to apply their knowledge in meaningful ways. These engagements enrich their teaching practices and societal contributions.

Appendix E

Certificate of English

BANSOMDEJCHAOPRAYA
RAJABHAT UNIVERSITY

This is to certify that

Mrs.Huang Liqiong

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C2

Given on 9th August 2022

(Assistant Professor Dr Kulsirin Aphiratvoradej)

Director

Appendix F

The Document for Acceptance Research
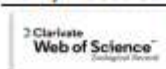
RESEARCH ARTICLE

Evaluation and Improvement Path of Higher Vocational Teachers' Development Index under the Background of High-Quality Development

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ARTICLE INFO	**ABSTRACT**
	This study focuses on the high-quality development of higher vocational teachers, utilizing the "two alls and three characteristics" development theory model and evaluation system to investigate and assess their current development status. The aim is to determine the overall level of development and identify existing deficiencies. Key findings include: The development index of higher vocational teachers is 72.9, indicating a "good" level of development. The development of higher vocational teachers exhibits three main characteristics: region, school type, and identity. The three main negative factors affecting development are the lack of participation in teaching and skill competitions, difficulty in competing for vocational skill training opportunities, and high professional and life pressure. Life development, professional development, social development, and organizational development show a strong positive linear correlation with the overall development index, indicating these are the primary influencing factors. Regression analysis confirms that all four dimensions—life development, professional development, social development, and organizational development—positively contribute to the development of higher vocational teachers. Based on these findings, the study proposes five practical strategies to enhance the quality of higher vocational teacher development. These strategies aim to build a "dual-qualified" teaching team characterized by high quality, deep dedication, strong skills, and vitality. The study provides a valuable theoretical framework and practical guidance, with important academic and practical implications for the field.

INTRODUCTION

Introduce the Problem

The level and quality of the teaching staff directly influence the teaching quality and talent training outcomes in higher vocational colleges. Kong (2012) noted that since vocational education entered a new era, significant progress has been made in establishing a teacher training system, improving teacher management mechanisms, and enhancing the status and treatment of teachers. These advancements have collectively raised the overall quality and capacity of educators, providing robust

intellectual support for the reform and development of vocational education. However, challenges persist, including an insufficient number of teachers, limited recruitment sources, inadequate two-way flow between schools and enterprises, structural imbalances, and inflexible management systems. Additionally, there is a scarcity of high-level talent, such as renowned teachers, professional leaders, and young backbone educators with strong theoretical and practical teaching skills, advanced educational backgrounds, and expertise (Guangdong Provincial Department of Education, 2021). Low digital literacy also hinders the high-quality development of vocational education. If the construction of the teaching workforce falls behind, higher vocational education will lose its "source of fresh water" (Qiu & Huang, 2024). As China's vocational education enters a transformative golden era, with efforts to promote the "new double highs," building a high-level "dual-qualified" teaching team has become an urgent and strategic priority for vocational colleges, deserving greater attention and resources (Guangdong Provincial Department of Education, 2021).

Teacher development refers to the continuous career growth of teachers, progressing from novice to experienced, and ultimately to expert status through the influence of internal and external forces within the educational ecosystem and school environment (Sui, 2020). The theory of teacher development emerged in Europe and the United States in the late 1960s, spearheaded by Fuller (1969) with the development of the Teacher Concern Questionnaire. Over decades of exploration, various theoretical frameworks have been established, including the stage theory of teacher development, teacher development model theory, and expert teacher theory (Yang, 1999). Research on higher vocational teacher development in China began in the early 2000s but remains relatively underdeveloped. While recent years have seen an increase in academic activity, with over 50 related papers, most focus on teachers in traditional universities and rely heavily on literature reviews, observations, interviews, and logical analysis rather than rigorous empirical research (Qiu & Huang, 2024). The absence of modern theoretical and evaluation models limits the understanding of the mechanisms driving teacher development, hindering sustainable progress for vocational educators.

Explore Importance of the Problem

Research on the evaluation and improvement of vocational teachers' development indices is critical for advancing high-quality vocational education, particularly in the context of China's modernization goals. Vocational education plays a key role in national development by training a skilled workforce aligned with modern industrial needs. This sector supports economic and social growth by providing practical and relevant education. However, achieving these outcomes requires a teaching staff capable of blending theoretical knowledge with practical skills. Thus, the continuous evaluation and development of educators are paramount (Zhou, 2021).

The teaching workforce in vocational education faces several challenges that hinder its contribution to high-quality development. Many institutions lack sufficient "dual-qualified" teachers who possess both teaching expertise and real-world industrial experience. Structural issues, such as limited collaboration between academia and industries, exacerbate this problem (Li & Chen, 2021). Furthermore, digital and technological literacy among educators remains low, limiting their ability to integrate modern educational tools into their teaching practices (Wang & Zhang, 2022). Addressing these gaps is essential to improving the overall quality and relevance of vocational education.

This research also aligns with national policies and global trends emphasizing high-quality development in education. Policies like China's "Double High Plan" prioritize building a robust teaching workforce to enhance vocational education standards. Evaluating and improving vocational teachers' development indices is critical to meeting these policy goals and addressing the broader demands of a rapidly evolving job market. By tackling these challenges, this research contributes to the long-term growth and sustainability of vocational education.

Describe Relevant Scholarship

The development and evaluation of higher vocational teachers are critical components in the pursuit of high-quality vocational education. Recent studies have explored various frameworks and models to assess and enhance teaching quality in this sector.

Jiang and Liu (2021) introduced the Context, Input, Process, and Product (CIPP) evaluation model to construct a teaching quality evaluation system for project-based curricula in higher vocational education. Their study emphasizes the necessity of evaluating comprehensive teaching quality, including implementation background, conditions, processes, and results, to promote connotative development in China's higher vocational education. Ling, Chung, and Wang (2023) discussed the reform of management systems in higher vocational education in China, highlighting the shift from a knowledge-based to an ability-based education model. They argue for the establishment of a personality-based education model to cultivate well-rounded students, thereby innovating talent training modes and enhancing personnel quality. The Chinese central authorities have issued guidelines to promote high-quality development in modern vocational education. These guidelines advocate for improved teacher quality, innovative teaching models, and enhanced cooperation with enterprises to align vocational education with market demands and emerging industries. Lv (2024) examined the reform path of practical teaching quality evaluation in five-year higher vocational colleges. The study underscores the importance of a robust practical teaching quality evaluation system as a measure to test talent training effectiveness and promote continuous teaching quality improvement.

These studies collectively contribute to understanding the evaluation and improvement pathways for higher vocational teachers' development indices, aligning with the goals of high-quality vocational education development.

State Hypotheses and Their Correspondence to Research Design

This study addresses these gaps by proposing the "two alls and three qualities" development concept for higher vocational teachers in the new era. It aims to establish a theoretical model and evaluation system for teacher development, assess current development indices, identify deficiencies, and explore the adverse factors affecting teacher growth. By analyzing differences in responses to the primary influencing factors, the study seeks to reveal the mechanisms underpinning teacher development and provide theoretical and practical pathways for building high-quality "dual-qualified" teaching teams characterized by professionalism, deep commitment, strong skills, and vitality.

METHOD

The research is mix-method research, including qualitiative research and quantitive research. There is questionnaire to survey the current situation related to the higher vocational teachers' development of index under the high-quality development. There is focus-interview to creat the strategies for improving the higher vocational teachers' development of index under the high-quality development. And there is also evaluation form to evaluate adaptiability and feasibility of the higher vocational teachers' development of index under the high-quality development.

Participant (Subject) Characteristics

There are almost 50,000 teachers on staff in 93 higher vocational colleges in Guangdong Province as the participants in this research.

Higher vocational college teachers refer to those who have been in teaching in colleges or vocational colleges in higher vocational and technical colleges. Not only do they have solid disciplines, they are also familiar with the teaching methods and theories of vocational education. They are committed to

cultivating high -quality skill talents with practical operational skills and adapting to the needs of the industry.

There are divided into 2 sections of those who participate in the research, 1) there are 4 vocational colleges in the east, west and north of Guangdong with almost 12,000 teachers on staff, and 2) there are 4 vocational colleges in the Guangdong – HongKong – Macao Greater Bay with almost 38,000 teachers on staff.

Sampling Procedures

When design the research sampling procedures, there are 3 phases in processing.

Phase 1 is to survey the current situation related to the higher vocational teachers' development of index under the high-quality development.

Phase 2 is to creat the strategies for improving the higher vocational teachers' development of index under the high-quality development.

Phase 3 is to evaluate adaptiability and feasibility of the higher vocational teachers' development of index under the high-quality development.

Sample Size, Power, and Precision

The sample group for this study consists of 381 teachers from higher vocational colleges in Guangdong Province. The sample was selected using the random sampling table provided by Krejcie and Morgan (1970). A stratified random sampling method was applied, dividing the participants into subgroups based on specific criteria. This approach ensures representative sampling and improves the reliability of the study's findings.

Phase 1, there are 92 teachers from higher vocational colleges in the east, west and north of Guangdong Province and 289 teachers from higher vocational colleges in the Guangdong – HongKong – Macao Greater Bay Area.

Phase 2, there are 2 teachers from higher vocational colleges in Guangdong Province with 1-5 years of teaching experience, 2 teachers with 6-15 years of teaching experience, 2 teachers with 16-25 years of teaching years, and 3 teachers with more than 25 years of teaching experience.

Phase 3, there are 1 expert who has worked in this area for more than 15 years, 2 experts with senior professional titles, and 2 administors at or above the director level.

Measures and Covariates

Through the measures of matching objectives, Table 1 is shown the measure, research instrument and participants.

Table 1. The measures and covariates

Phase	Objective	Methodology	Research Instrument	Type of Research
1	To survey the current situation related to the higher vocational teachers' development of index under the high-quality development	Survey	Questionnaire	Quantitative Analysis
2	To creat the strategies for improving the higher vocational teachers' development of index under the high-quality development	Interview	Interview	Qualitative Analysis

3	To evaluate adaptiability and feasibility of the higher vocational teachers' development of index under the high-quality development	Evaluate	Evaluation Form	Quantitative Analysis

The dependent variable in this study is Higher Vocational Teachers' Development Index. This variable represents the growth and progress of teachers working in higher vocational institutions, encompassing their ability to meet professional and pedagogical expectations in a high-quality educational context.

The independent variables influencing vocational teacher development include multiple dimensions: life development, professional development, organizational development, and social development. Life development refers to the personal growth and well-being of teachers, while professional development involves enhancing their teaching skills, knowledge, and career progression. Organizational development focuses on the structural and managerial aspects within the institutions that support teacher growth. Social development includes external societal factors, such as community engagement and societal support, which impact the overall development of higher vocational teachers.

The development identifies 4 core dimensions: life development, professional development, social development, and organizational development. These dimensions not only represent the areas of teacher development but also serve as the primary factors influencing it. Each dimension directly impacts teachers' overall growth and effectiveness in their roles. The conceptual framework shows as Figure 1. This conceptual framework emphasizes the multidimensional nature of teacher development and integrates several key theoretical perspectives.
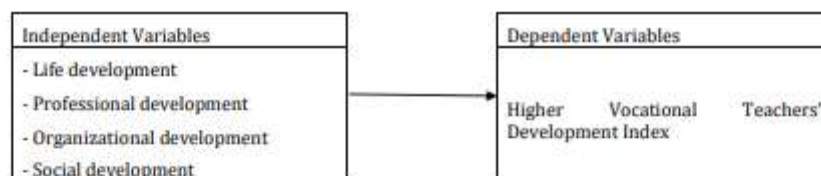

Figure 1. Conceptual Framework

In this framework, organizational development holds a unique position as it not only directly influences teacher development but also acts indirectly through other dimensions. For example, organizational development can influence life development, professional development, and social development, which in turn mediate its effect on overall teacher growth. Similarly, professional development can indirectly impact teacher development through its interactions with life development and social development, highlighting the interconnectedness of these dimensions.

Research Design

The questionnaire is designed with 4 primary dimensions: life development, professional development, social development, and organizational development. These primary dimensions are further divided into nine secondary dimensions, comprising a total of 43 items. Specifically, life development includes 12 items, professional development contains 15 items, social development comprises 7 items, and organizational development has 10 items.

A 5-point Likert scale is used for the questionnaire, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). Additionally, the questionnaire collects demographic information,

including individual characteristics such as identity, gender, and teaching experience, as well as school attributes such as regional location and school type.

The reliability and validity of the questionnaire were tested using SPSS 27.0. The overall reliability, measured by Cronbach's alpha coefficient, was 0.960, while the split-half reliability alpha coefficient was 0.881. The content structural validity, as indicated by the KMO coefficient, was 0.955. These results demonstrate that the evaluation form has excellent reliability and validity, making it suitable for data analysis.

RESULTS

Recruitment

The survey targeted teachers from higher vocational colleges across the province. Participants were randomly selected based on key criteria, including economic and social development regions, school types, and teacher identities. A total of 381 valid responses were collected, representing a diverse demographic. The demographic characteristics of the participants are detailed in Table 2.

Table 2. Demographic characteristics of survey samples (N=381)

Variable		Number of people	Proportion (%)	Variable		Number of people	Proportion (%)
Administrative area	The Greater Bay Area	289	75.9	School type	National high-level vocational education	73	19.2
	Guangdong, East, West and North regions	92	24.1		Provincial Demonstration Vocational College	128	33.6
Gender	male	210	55.1		Ordinary higher vocational	180	47.2
	female	171	44.9	Teaching experience	0-3 years	114	29.9
Teacher identity	Ordinary Teacher	236	61.9		4 to 15 years	151	39.6
	Ideological and political teachers	48	42.6		16-25 years	71	18.6
	Teaching management staff	97	25.5		25+ years	45	11.8

Statistics and Data Analysis

Development Index and Basic Characteristics of Higher Vocational Teachers

General Overview

According to the data presented in Table 3, the overall development index of higher vocational teachers stands at 72.9, indicating a "good" level. This suggests that while the general development

level of higher vocational teachers is commendable, there remains a noticeable gap from achieving high-quality development, leaving considerable room for improvement.

Analyzing the four dimensions of development, three dimensions—life development (77.2), organizational development (75.4), and professional development (75.0)—have achieved a "good" level. However, the social development dimension (64.0) is at a "basic qualified" level, highlighting a weaker area in the overall development framework.

These findings suggest that while the overall development of higher vocational teachers is generally positive, there are notable shortcomings. The social development dimension, in particular, represents a significant area of deficiency, indicating the need for targeted efforts to address this gap.

Table 3. Higher vocational teacher development index table (N=381)

Item Class	Development Index	Life Development	Professional Development	Social Development	Organizational Development
average value	72.9	77.2	75.0	64.0	75.4
Standard Deviation	15.19	11.81	15.92	23.80	17.46

Further analysis of the data in Table 4 reveals the distribution of development levels among higher vocational teachers. Specifically, 121 teachers (31.8%) are at a "high" development level, 78 teachers (20.5%) are at a "relatively high" level, 99 teachers (26.0%) are at a "normal" level, and 83 teachers (21.8%) are at a "poor" level.

This indicates that nearly half of the higher vocational teachers fall into the "normal" or "poor" development categories, while slightly more than half are at a "relatively high" level or above. These findings highlight a significant imbalance in the development levels of higher vocational teachers, underscoring the need for focused interventions to support teachers at the lower end of the development spectrum.

Table 4. Distribution of higher vocational teachers by development level (%)

Item Class	High	Relatively high	Generally	Difference
Number of people	121	78	99	83
percentage	31.8	20.5	26.0	21.8

Basic Feature Analysis

The data in Table 5 reveals several key characteristics regarding the development of higher vocational teachers: First, regional differences are evident. The development index of teachers in the nine cities of the Greater Bay Area is 76.4, which is significantly higher than that of teachers in the eastern, western, and northern regions of Guangdong, whose development index is 61.8. This substantial gap is statistically significant and highlights the regional imbalance in teacher development. Second, there are differences based on school types. Teachers in national double-high schools have a development index of 81.7, which is much higher than those in provincial demonstrative higher vocational schools (69.2) and ordinary higher vocational schools (72.0). These differences are also statistically significant, indicating that national double-high schools provide better opportunities or support for teacher development. Third, teacher roles show notable disparities. The development index of ordinary teachers is 74.7, outperforming ideological and political teachers, whose development index stands at 67.5. This gap is statistically significant and suggests that differences in teacher roles may impact development opportunities or resources. In contrast, no significant differences were observed in terms of gender or teaching experience. This suggests that these factors do not play a significant role in the development index of higher vocational teachers.

Overall, these findings highlight the existence of disparities in teacher development across regions, school types, and roles, emphasizing the need for targeted policies and interventions to bridge these gaps and promote equitable development opportunities for all teachers.

Table 5. Basic characteristics of higher vocational teacher development (N=381)

Variable		Number of people	Average value	Standard Deviation	Variance test	
					F-number	Significance
Area	Nine Cities in the Greater Bay Area	289	76.4	15.11	77.552	0.000
	Guangdong, East, West and North	92	61.8	8.76		
School Type	National high-level vocational education	73	81.7	14.74	17.870	0.000
	Provincial Demonstration Vocational College	128	69.2	14.56		
	Ordinary higher vocational	180	72.0	14.47		
Teacher status	Ordinary Teacher	236	74.7	13.97	5.365	0.005
	Ideological and political teachers	48	67.5	12.01		
	Teaching management staff	97	71.2	18.43		
gender	male	210	72.6	15.52	0.190	0.664
	female	171	73.3	14.80		
Teaching year	0-3 years	114	72.3	14.07	1.862	0.136
	6-15 years	151	72.3	15.13		
	16-25 years	71	71.9	14.53		
	25+ years	45	77.9	18.39		

The results indicate that the development of higher vocational teachers is characterized by three key factors: region, school type, and teacher identity. These findings reveal the general patterns and fundamental characteristics of higher vocational teacher development.

Shortcomings and Challenges in the Overall Development of Higher Vocational Teachers

Secondary Indicator Analysis of Higher Vocational Teachers' Development

The data in Table 6 highlights key strengths and weaknesses in the secondary dimensions of higher vocational teachers' development. Among these dimensions, teacher ethics development stands out as a significant strength, with an evaluation index of 84.3, which is categorized as "excellent." This indicates that higher vocational teachers demonstrate strong ethical standards and professionalism.

However, notable shortcomings are evident in three secondary dimensions: social services, physical and mental health, and scientific research development. All three dimensions are evaluated at a "general" qualified level, reflecting relatively low development quality. These areas represent critical weaknesses and highlight the need for targeted interventions and support to enhance the overall development of higher vocational teachers.

Table 6. Secondary indicator index of higher vocational teacher development (N=381)

Item Class	Teacher ethics develop	Body and mind healthy	Autonomy develop	Teaching develop	Research develop	Society Serve	Educate people Work	Professton Ecology	Support Assure
average value	84.3	65.7	76.9	77.1	68.4	62.2	71.4	75.6	75.3
Standard Deviation	12.33	18.81	15.25	14.16	21.66	25.58	23.07	17.49	18.77
Sorting	1	8	3	2	7	9	6	4	5

Further analysis of Table 7 reveals nine factors with an average score of less than 3.50, falling below the median. These factors negatively influence the development of higher vocational teachers, playing a detrimental role in their growth. The findings identify three primary negative factors: the lack of participation in teaching and skills competitions, the difficulty in competing for vocational skills training opportunities, and the high pressure of career and life. These factors directly hinder teachers' ability to develop professionally and maintain work-life balance. Additionally, six secondary unfriendly factors are highlighted: the lack of participation in academic activities, the difficulty in joining academic organizations, the limited time spent in enterprises, the small number of scientific research achievements, the insufficient transformation of teaching and research results, and the lack of physical health. These factors predominantly concentrate on deficits in professional development and life development, indicating significant areas for targeted intervention and support to improve the overall development of higher vocational teachers.

Table 7. List of main negative factors affecting the development of higher vocational teachers (N=381)

Sorting	factor	Minimum	Maximum	average value	Standard Deviation
1	Participation in teaching, technology, professional skills and other competitions	1	5	2.80	1.480
2	Undertake vocational courses and skills training business	1	5	2.94	1.539
3	Perceived professional and life stress	1	5	2.95	1.104
4	Go out to participate in lectures, reviews, academic exchanges, etc.	1	5	3.06	1.361
5	Host or participate in social groups, academic organizations, etc.	1	5	3.17	1.510
6	The time of enterprises, institutions, industries, etc. in the next year	1	5	3.25	1.573
7	Annual papers, monographs, patents and other achievements	1	5	3.27	1.540
8	Economic or social benefits of transformation of teaching and scientific research results	1	5	3.40	1.304

9	Chronic diseases such as high blood sugar, high blood pressure, and high uric acid	1	5	3.41	1.378

Main Influencing Factors of Higher Vocational Teacher Development and Their Contribution

Correlation Between Development and Key Influencing Factors

The data presented in Table 8 demonstrates the correlations between the development of higher vocational teachers and four key influencing factors: life development, professional development, social development, and organizational development. Using region as a control variable, the correlation coefficients for these factors with teacher development are 0.814, 0.910, 0.891, and 0.817, respectively, all of which are statistically significant.

These results indicate a strong positive linear correlation between each of the four dimensions and the overall development of higher vocational teachers. This finding underscores the close internal connection between these dimensions and highlights their role as primary influencing or response factors in teacher development.

Furthermore, the results validate the appropriateness of the "first-order four-dimensional" theoretical model. This model aligns with the fundamental characteristics and basic principles of higher vocational teacher development, providing a robust framework for understanding and enhancing teacher growth.

Table 8. Correlation between the development of higher vocational teachers and the main influencing factors (N=381)

Control variables		Developme nt Index	Life Developme nt	Professiona l Developme nt	Social Developme nt	Organization al Developmen t
Are a	Developmen t Index	1.000				
	Life Developmen t	0.814 **	1.000			
	Professional Developmen t	0.910 **	0.670 **	1.000		
	Social Developmen t	0.891 **	0.557 **	0.834 **	1.000	
	Organization al Developmen t	0.817 **	0.718 **	0.604 **	0.547 **	1.000

Note: $**p < 0.01$

Contribution Measurement of Key Influencing Factors to Higher Vocational Teacher Development

The data in Table 9 provides insights into the contribution of four key independent variables—life development, professional development, social development, and organizational development—to the development of higher vocational teachers.

First, the analysis confirms that all four independent variables hypothesized to influence teacher development are included in the structural equation model. The adjusted R-square coefficient is 1.00, indicating an ideal goodness of fit. This suggests that a multivariate linear equation can be reliably established to represent the relationships among the variables.

Second, the goodness-of-fit test for the multivariate linear equation shows a zero residual, with results that are highly significant. This confirms that the linear relationship between the dependent variable (teacher development) and the four independent variables is fully established. These findings validate the theoretical model and demonstrate that the independent variables effectively explain the changes in the dependent variable.

Third, the regression coefficient significance tests indicate that the unstandardized coefficients for the contributions of life development, professional development, social development, and organizational development are all 0.25. The standardized coefficients are 0.194, 0.262, 0.287, and 0.392, respectively. These results reveal that organizational development has the greatest impact on the teacher development index, with an explanatory power of 39.2%, followed by social development at 28.7%, professional development at 26.2%, and life development at 19.4%.

Overall, these findings highlight that life development, professional development, social development, and organizational development all have a positive and significant impact on the development of higher vocational teachers. Among these, organizational development emerges as the most influential factor, indicating the critical role of institutional support and structure in driving teacher growth.

Table 9. List of predicted contribution coefficients a of various influencing factors in the higher vocational teacher development model

Model	Unstandardized Coefficients		Standard coefficient	t-value	Significance
	B	Standard error	Beta		
Constant	6.395E-14	0.000		0.000	1.000
Life Development	0.250	0.000	0.194	68815910.322	0.000
Professional Development	0.250	0.000	0.262	68915329.954	0.000
Social Development	0.250	0.000	0.287	105200386.779	0.000
Organizational Development	0.250	0.000	0.392	114201969.898	0.000

Note: a. Dependent variable: Development index

DISCUSSION

Phase 1: Survey the Current Situation of Higher Vocational Teachers' Development Index Under High-Quality Development

The findings from this study reveal that the overall development index of higher vocational teachers is at a "good" level, with a score of 72.9. However, significant disparities exist across the four dimensions of development. Life development, professional development, and organizational development achieved relatively high scores, indicating areas of strength. In contrast, social development scored only 64.0, falling into the "basic qualified" category, highlighting it as a critical area requiring improvement.

The demographic analysis further revealed uneven development based on regions, school types, and teacher roles. Teachers in national-level high-vocational schools (81.7) and the Greater Bay Area

(76.4) demonstrated stronger development indices compared to their counterparts in provincial and ordinary vocational schools and less developed regions. Similarly, ordinary teachers scored higher than ideological and political teachers, indicating disparities based on teacher identity. These findings underscore the need for targeted policies and interventions to address these gaps and promote balanced development.

Phase 2 Strategies for Improving the Higher Vocational Teachers' Development Index

The contribution analysis provided valuable insights for crafting strategies to improve the development index. Organizational development emerged as the most influential factor, with an explanatory power of 39.2%, followed by social development (28.7%), professional development (26.2%), and life development (19.4%). These findings suggest that strengthening organizational structures and support mechanisms can significantly enhance teacher development.

Strategies proposed to address these issues include:

1)	Expanding opportunities for participation in teaching, technology, and skill competitions.

2)	Increasing involvement in academic activities and organizations to improve social development.

3)	Enhancing support for research and professional development, including time for enterprise engagement and the transformation of research outcomes.

4)	Providing resources to alleviate life stress and improve physical and mental health.

These targeted interventions aim to improve weaker dimensions, particularly social development, while maintaining progress in stronger areas like organizational development.

Phase 3 Adaptability and Feasibility of Proposed Strategies

The proposed strategies were evaluated using a structural equation model, which demonstrated excellent goodness-of-fit. The adjusted R-square coefficient of 1.00 and zero residual confirmed the strong linear relationships between the dependent variable (development index) and the four independent variables. This validation supports the theoretical model and its applicability across diverse contexts.

The significant contributions of all four dimensions underscore the feasibility of these strategies. Particularly, the high standardized coefficient of organizational development (0.392) suggests that institutional reforms, such as enhanced resource allocation and management structures, would yield substantial benefits. Similarly, improving opportunities for professional and social engagement could significantly enhance social development and overall teacher growth.

These findings demonstrate the practicality of implementing these strategies and highlight their potential for addressing disparities in teacher development, particularly for underperforming regions and school types.

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