

DEVELOPMENT OF HIGHER VOCATIONAL EDUCATION
ADMINISTRATION IN CHINA

JIANG JUN

A Thesis Paper Submitted in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy Program in Educational Administration

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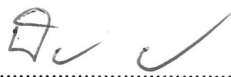
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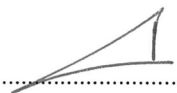
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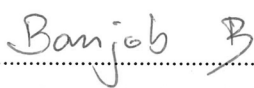
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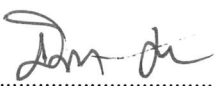

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ 1) เพื่อศึกษาสภาพการบริหารจัดการอาชีวศึกษาในประเทศจีนในปัจจุบัน 2) เพื่อเสนอแนวทางการพัฒนาการบริหารจัดการอาชีวศึกษาในประเทศจีน และ 3) เพื่อประเมินแนวทางการพัฒนาการบริหารจัดการอาชีวศึกษาในประเทศจีน กลุ่มตัวอย่างที่ใช้ในการวิจัย ได้แก่ อาจารย์จากมหาวิทยาลัยชั้นนำ 10 แห่งในประเทศจีน จำนวน 330 คน กลุ่มสัมภาษณ์คือผู้ให้ข้อมูลสำคัญในประเทศจีนจำนวน 10 คน และกลุ่มประเมินคือผู้ให้ข้อมูลสำคัญในประเทศจีนจำนวน 20 คน เครื่องมือที่ใช้ในการวิจัยประกอบด้วย 1) แบบสอบถาม 2) การสัมภาษณ์แบบมีโครงสร้าง และ 3) แบบประเมิน การวิเคราะห์ข้อมูลโดยใช้ค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า 1) สถานการณ์ปัจจุบันของการบริหารจัดการอาชีวศึกษาระดับอุดมศึกษาในประเทศจีน 7 ด้าน อยู่ในระดับมาก 2) แนวทางการบริหารจัดการอาชีวศึกษาระดับอุดมศึกษาในประเทศจีน 7 ด้าน จำนวน 70 บทความ ประกอบด้วย 10 แนวทาง ได้แก่ โครงสร้าง 10 แนวทาง กลยุทธ์ 10 แนวทาง ระบบ 10 แนวทาง ทักษะ 10 แนวทาง รูปแบบ 10 แนวทาง บุคลากร 10 แนวทาง และคุณค่าร่วม 10 แนวทาง 3) การประเมินแนวทางการพัฒนาการบริหารจัดการอาชีวศึกษาระดับอุดมศึกษาในประเทศจีน

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ABSTRACT

The objectives of this research were: 1) To study the current situation of higher vocational education administration in China, 2) To propose development guideline of higher vocational education administration in China, and 3) To evaluate the development guideline of higher vocational education administration in China. The sample group of this research were 330 teachers of 10 outstanding universities in China. The interview group was 10 key informants in China. The evaluation group was 20 key informants in China. Research instruments included: 1) questionnaire. 2) structured interview and 3) evaluation forms. Data analysis by using percentage, mean, standard deviation and content analysis.

The results were: 1) The current situation of higher vocational education administration in China in seven aspects was at high level. 2) The guidelines of higher vocational education administration in China in seven aspects, which contain 70 articles. There are 10 guidelines for Structure, 10 guidelines for Strategy, 10 guidelines for systems, 10 guidelines for skill, 10 guidelines for Style, 10 guidelines for staff, 10 guidelines for Shared value. 3) The evaluation of the development guideline of higher vocational education administration in China.

Keywords: Higher vocational education administration, China, Management of Higher Vocational Colleges

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Gratitude to life, gratitude to destiny.

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Contents

	Page
Abstract.....	i
Abstract (Thai).....	ii
Acknowledgement.....	iii
Contents.....	iv
List of Figures.....	vi
List of Tables.....	vii
Chapter	
1 Introduction.....	1
Rationale.....	1
Research Question.....	4
Research Objective.....	5
Scope of the Research.....	5
Advantages.....	6
Definition of Terms.....	7
Research Framework.....	11
2 Literature Review.....	12
Concept About Education Administration.....	12
Theory About Administration.....	22
Concept About Higher Vocational Education.....	51
Context of Higher Vocational Education of China.....	62
Related Research.....	64
3 Research Methodology.....	86
The Population/Sample Group.....	86
Research Instruments.....	87
Data Collection.....	89
Data Analysis.....	89

Contents (Continued)

	Page
4 Results of Analysis.....	94
Symbol and Abbreviations.....	94
Presentation of Data Analysis.....	94
Results of Data Analysis.....	95
5 Discussion Conclusion and Recommendations.....	132
Conclusion.....	132
Discussion.....	141
Recommendations.....	162
References.....	165
Appendices.....	177
A List of Specialists and Letters of Specialists Invitation for IOC Verification...	178
B Official Letter.....	180
C Research Instrument.....	210
D The Results of the Quality Analysis of Research Instruments.....	250
E Action Guidelines of Educational Management Model.....	254
F Certificate of English.....	256
Researcher Profile.....	258

List of Figures

Figure	Page
1.1 Research Framework.....	11

List of Tables

Table	Page
3.1 lists of university and sample size.....	87
4.1 number of people and percentage of respondents.....	95
4.2 The average value and standard deviation of the current situation of the higher vocational education administration in China in seven aspects.....	96
4.3 The average value and standard deviation of the current situation of the higher vocational education administration in China in structure.....	97
4.4 The average value and standard deviation of the current situation of the higher vocational education administration in China in strategy.....	98
4.5 The average value and standard deviation of the current situation of the higher vocational education administration in China in system.....	99
4.6 The average value and standard deviation of the current situation of the higher vocational education administration in China in skill.....	100
4.7 The average value and standard deviation of the current situation of the higher vocational education administration in China in style.....	101
4.8 The average value and standard deviation of the current situation of the higher vocational education administration in China in staff.....	102
4.9 The average value and standard deviation of the current situation of the higher vocational education administration in China in shared value.....	103
4.10 Personal information of interviewee.....	104
4.11 The guidelines of China in higher vocational education administration.....	111
4.12 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in seven aspects.....	117
4.13 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in structure.....	118

List of Tables (Continued)

Table	Page
4.14 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in strategy.....	120
4.15 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in system.....	122
4.16 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in skill.....	124
4.17 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in style.....	126
4.18 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in staff.....	128
4.19 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in shared value.....	130

Chapter 1

Introduction

Rationale

Faced with the grim situation of an average annual decrease of 4-6 million in the working-age population since 2012, and the development bottleneck of unit labor output being only 25%-30% of the OECD average (National Bureau of Statistics, 2021), the Chinese government has positioned vocational education as a core pillar supporting national strategy. In 2018, the State Council's "Opinions on Promoting a Lifelong Vocational Skills Training System" first proposed the strategic function of vocational education as a stabilizer for "the proportion of manufacturing, employment scale, and the middle-income group." Between 2019 and 2021, 28 policy documents were issued intensively, completing a comprehensive revision of the "Vocational Education Law" after 26 years, and establishing a complete institutional framework. In 2021, the Central Committee for Deepening Overall Reform elevated "skills assurance" to the level of strategic reserves, alongside food and energy security, marking vocational education as an important component of the national security system. According to data from the Ministry of Finance, from 2019 to 2022, the central government invested a total of 126 billion yuan in the Modern Vocational Education Quality Improvement Plan, with an average annual increase of 18.7%. The plan also rigidly links 30% of the performance-based bonus funds to indicators such as the 1+X certificate acquisition rate and enterprise participation, thus forming a strong policy guidance.

China's vocational education system is undergoing a revolutionary restructuring: the legal status of vocational undergraduate education has been established, and a vertically integrated system of "secondary vocational school - higher vocational school - vocational undergraduate - professional master's degree" has been constructed. A 2021 central government document set a mandatory target that by 2025, the enrollment scale of vocational undergraduate programs must reach

more than 10% of that of higher vocational education. As of January 2023, 32 vocational undergraduate institutions had enrolled 124,000 students, implementing a new "three-no" model: focusing on industrial cluster development without academic disciplines, focusing on cultivating field engineers without doctoral programs, and abandoning the traditional administrative management system in favor of a dual-track governance model of "board of directors + industry college." The teaching staff is transforming towards "dual-qualified" teachers, with the Ministry of Education's standards requiring that by 2025, 60% of teachers be dual-qualified (possessing both academic and professional qualifications). Teaching scenarios are rapidly evolving digitally, with the 215 virtual simulation training bases built by the Ministry of Education driving 4.2 billion yuan in social investment. Students' career development paths have been significantly broadened. In 2022, the enrollment rate of vocational college graduates reached 28%, an increase of 17 percentage points compared to 2018, and the starting salary has increased for five consecutive years to 4,595 yuan.

Faced with the triple pressures of declining demographic dividend, industrial chain upgrading, and external technological blockade, vocational education has become a key fulcrum for breaking through development bottlenecks. The 14th Five-Year Plan requires the output value of the eight strategic emerging industries and ten advanced manufacturing clusters to account for over 17% of GDP. Meanwhile, the Ministry of Industry and Information Technology predicts that by 2025, the intelligent manufacturing sector will face a shortage of 30 million highly skilled personnel, 60% of whom will require vocational undergraduate training. This demand is driving innovation in industry-education integration mechanisms: the National Development and Reform Commission's "Implementation Measures for Building Industry-Education Integration Enterprises" has provided a 30% education surcharge credit incentive, certifying 1,226 enterprises and leveraging 46 billion yuan in social investment. The Ministry of Human Resources and Social Security's "1+X" certificate system has issued 447 types of certificates, covering 5.3 million people. Guangdong Province has linked 105 "X" certificates to the exchange of 12-18 undergraduate credits. Shandong Province's "Skill Credit Bank" has accumulated 21 million skill credits, enabling 73,000

people to complete their academic advancement. Various provinces are exploring innovative models such as "chain leader system + vocational education city", "enclave park", and "skilled talent green card" to deeply embed vocational education into regional industrial development planning.

Despite unprecedented policy support, the systemic transformation still faces profound challenges: First, the equivalence between vocational education and traditional academic education has not yet been truly established, with social perception lagging behind institutional design; second, the intrinsic motivation for enterprise participation remains to be activated, and the long-term effects of policy levers such as tax incentives need to be evaluated; third, the rapidly expanding vocational undergraduate education faces quality assurance challenges, requiring systematic solutions for faculty transformation and curriculum restructuring; fourth, regional development imbalances are prominent, with a significant gap between the eastern coastal areas and the central and western regions in the depth of industry-education integration. Research on these issues has urgent practical significance: in the context of global supply chain restructuring, the effectiveness of the skills formation system is directly related to national industrial security, and innovation in vocational education governance models will provide a Chinese solution that can be learned from by developing countries worldwide.

This research, situated at the intersection of national strategic needs and individual development opportunities, aims to explore: how to achieve precise matching between skills supply and industry demand through the optimization of a multi-level governance matrix (national-provincial-industry-institutional); how to construct a skills certification system adapted to the development of the digital economy, enabling skills capital to be accumulative, convertible, and tradable; and how to maintain the international competitiveness of the manufacturing industry through the reconstruction of skills dividends in an era of negative population growth. By analyzing the institutional innovations and practical experiences of vocational education reform in China, this research not only provides theoretical support for policy optimization but also guides individuals' development paths in a

skills-based society, ultimately promoting a virtuous cycle of mutual reinforcement between the "national skills formation system" and "individual skills development channels."

China's vocational education is undergoing a historic transformation from quantitative expansion to qualitative restructuring. Driven by four dimensions—national legislative guarantees, dedicated financial investment, innovative industry-education integration mechanisms, and educational system restructuring—a skills development system adapted to the new path of industrialization is being built. This ecosystem, covering 200 million skilled workers, cultivates field engineers for strategic emerging industries and nurtures digital craftsmen for the digital transformation of manufacturing through vertically integrated educational pathways and horizontally integrated industry-education mechanisms. Furthermore, it opens up lifelong development channels for workers through institutional innovations such as skills credit banks. Under the dual pressures of demographic shifts and industrial upgrading, the effectiveness of vocational education reform will directly determine whether China can achieve its core goals of stabilizing the proportion of manufacturing and expanding the middle-income group during the 14th Five-Year Plan period. This will have a profound impact on the restructuring of the global manufacturing landscape.

Research Questions

1. What are the problems in higher vocational education administration in China?
2. What are the development guidelines in higher vocational education administration in China?
3. Does the development guideline of higher vocational education administration in China suitability and adaptability?

Research Objectives

1. To study the current situation of higher vocational education administration in China.
2. To propose development guideline of higher vocational education administration in China.
3. To evaluate the development guideline of higher vocational education administration in China.

Scope of the Research

Population and the Sample Group

Population

The population of this research were 1650 teachers from 10 outstanding universities in China.

The Sample Group

According to Krejcie and Morgan sampling table (1970), the sample group of this research was 313 teachers from 10 outstanding universities in China. By using stratified random sampling and simple random sampling. In order to meet the research requirements, an additional 5% of questionnaires were collected, totaling 330 questionnaires. Therefore, the actual research sample consisted of 330 teachers.

The interviewee

The interviewee in this research were 10 high-level administrators in 10 outstanding universities in China. The qualifications of interviewee are as follows: 1) at least 10 years of work experience in higher vocational education administration in China, 2) dean or vice dean of faculty of education administration, 3) graduated with master's degree or above.

Expert group

The experts for evaluating the suitability and feasibility of guidelines was 20 experts from 10 outstanding universities in China. The qualifications of the experts are as follows: 1) at least 15 years of work experience in high-level administrator,

- 2) received the certificate in the higher vocational education administration field,
- 3) graduated with doctor's degree or above.

The Variable

According to the analyzed of related theories and research, characteristics of 7s model are as follows: Structure, Strategy, Systems, Skill, Style, Staff and Shared value.

Advantages

1. To apply the McKinsey 7S model to examine the current state of higher vocational education management in China, this study developed a comprehensive tool combining sampling surveys, interviews, and assessment forms across seven dimensions: Structure, Strategy, Systems, Skill, Style, Staff and Shared value. This tool offers the comparative advantage of penetrating bureaucratic hierarchies and reaching the very core of educational operations. First, through extensive data and literature review, we identified shortcomings in China's current vocational education operations. A questionnaire was then designed, and a questionnaire survey was conducted among faculty from ten universities ranked highly in Chinese vocational education research to identify areas for improvement. Leveraging the systematic perspective of the 7S model and ensuring external validity through sampling, this study provides a comprehensive, in-depth, and precise portrayal of the current state of higher vocational education management, laying a solid evidence-based foundation for subsequent policymaking.

2. In developing the Management Development Guidelines for Higher Vocational Education in China, McKinsey's 7S model provided a systematic strategy-structure-institutions alignment framework for integrating the results of sample surveys, interviews, and assessment forms. This unique advantage enabled the research to move from diagnosis to action plan. First, based on interviews with experts and teacher questionnaires from 10 sample institutions, the research found that existing management goals generally remained focused on supply-oriented indicators such as promotion rate to university and medals in skill competitions,

while field engineer competence, a key factor valued by businesses, was not incorporated into school-level strategic planning. Second, interviews revealed that institutions still maintain a risk-averse attitude toward faculty part-time work, rooted in a lack of leeway in personnel systems. In summary, the 7S model not only helped the research transform fragmented survey data into a systematic governance toolkit, but also, through the assessment form, tied each guideline measure to quantifiable, traceable, and incentivizable indicators, ensuring that the development guideline was both forward-looking and actionable.

3. To evaluate the proposed guidelines for the management and development of higher vocational education, the McKinsey 7S model provides a three-dimensional framework of consistency-synergy-sustainability, enabling a mutually validated closed loop of sampling surveys, interviews, and evaluation forms, thus ensuring that the evaluation conclusions possess both causal power and policy penetration. First, regarding the feasibility and adaptability of the guidelines, the study evaluated experts from 10 sample institutions to demonstrate the proposed guidelines. The 7S model not only provides a multidimensional evaluation perspective but also establishes external validity through sampling surveys, explores process mechanisms through interviews, and outputs quantitative indicators through evaluation forms, forming an integrated evaluation system of diagnosis-intervention-verification-early warning. This allows this study's evaluation of the guidelines for the management and development of higher vocational education to both quantify short-term effectiveness and predict long-term sustainability.

Definition of Terms

Higher Vocational education administration refers to the educational activities implemented to equip the educated with the professional ethics, scientific culture and professional knowledge, technical skill and other comprehensive qualities required for engaging in a certain occupation or career development. Vocational education and general education are different types of education and have equal importance. They are an important part of the national education system

and human resources development. They are an important way to cultivate diversified talents, inherit technical skill, and promote employment and entrepreneurship.

Structure refers to the structure, command chain, departmental division, and reporting relationships of an organization. It clarifies who reports to whom, how tasks are divided, and how coordination mechanisms operate. In the context of China's higher vocational education, this primarily refers to internal management hierarchies (such as the three-tier management system at school, college, and department levels), the relationship between the Party committee and administration (the principal responsibility system under the leadership of the Party committee), the allocation of academic and administrative authority, and the connection methods with external stakeholders (such as government, industries, and enterprises). A rational structure aims to ensure effective resource allocation, smooth information flow, efficient decision-making implementation, thereby supporting the realization of the institution's strategic objectives.

Strategy refers to the action plans and methods formulated by organizations to achieve their long-term goals and visions. It involves resource allocation, prioritization, and responses to competitive environments. For China's higher vocational education, its strategic core lies in responding to national policies (such as the National Vocational Education Reform Implementation Plan) and serving regional economic development and industrial upgrading needs. This is specifically reflected in aligning program offerings with local dominant industries, deepening industry-education integration and school-enterprise cooperation, exploring China's distinctive apprenticeship system, and enhancing the quality of technical and skilled talent cultivation. The strategy provides direction and focus for the development of higher vocational colleges.

Systems refers to the formal processes, procedures, rules, and systems that underpin daily organizational operations. It encompasses all aspects of management activities and serves as the software support for the operation of the hardware structure. In China's higher vocational education management, key systems include:

teaching management systems (such as quality monitoring and evaluation systems), personnel management systems (faculty recruitment, promotion, performance assessment), financial management systems, student management systems, research management systems, as well as the crucial long-term mechanisms for school-enterprise cooperation and industry-education integration. A well-established institutional system ensures the standardization, stability, and sustainability of management.

Skill refers to the core competencies and expertise of an organization as a whole encompass both its institutional strengths and the professional skill possessed by its staff (particularly faculty members and administrators). For vocational colleges, their essential skillset lies in cultivating students' practical technical abilities and vocational competencies that meet market demands. This requires educators to not only possess solid theoretical knowledge but also demonstrate rich practical experience and dual-qualified expertise (serving as both educators and engineers/technicians). The managerial skill of administrators are reflected in modern vocational college governance, management of school-enterprise collaboration projects, and resource integration.

Style refers to the leadership style, management approach, and overall cultural atmosphere of the organization's senior management team. It reflects how managers interact, allocate time, and symbolically emphasize certain aspects. In China's higher vocational colleges, leadership Style are typically influenced by the fundamental system of the president's responsibility under the Party committee's leadership, emphasizing the integration of collective decision-making with administrative efficiency. Moreover, successful leadership Style are transitioning from traditional administrative command to more open, service-oriented, and collaborative approaches, encouraging innovation, embracing industry transformation, and fostering a campus culture that values craftsmanship, practice, and application.

Staff refers to the human resource composition within an organization includes the number, composition, capacity development, and incentive systems of employees. In higher vocational education, the core of personnel lies in the teaching

staff (especially dual-qualified teachers) and management cadres. Their development involves personnel recruitment, training, career development, performance management, and retention. A major challenge and focus for China's higher vocational education is to build a high-quality dual-qualified teaching team that combines theoretical knowledge with practical skill, and to attract industry experts through effective incentive mechanisms to join the teaching team.

Shared value refers to the core values, beliefs, culture, and goals permeating the entire organization serve as the cornerstone that unites all members and guides all decisions. For China's higher vocational colleges, their shared values typically include: cultivating virtue and nurturing talents (prioritizing moral education to develop professionals with both moral integrity and technical expertise), serving development (supporting national strategies and regional socio-economic growth), promoting employment (oriented towards enhancing students' employability and quality), and upholding the spirit of craftsmanship (fostering a professional culture of dedication, precision, focus, and innovation).

Outstanding university refer to the top 10 universities with outstanding achievements in the field of higher vocational education development research selected in this study based on the Ministry of Education's 2023 Annual Report on Vocational Education Development Research.

Teacher refers to those who teach or conduct research in vocational education at the top 10 universities with outstanding achievements in higher vocational education development research, as selected based on the Ministry of Education's 2023 Annual Report on Vocational Education Development Research.

Development of higher vocational education administration in China refers to a type of educational development requirement in the current process of higher education development in China, which has high development requirements but still has significant shortcomings and room for development in terms of management system, standardization, and talent training needs.

Research Framework

The basic conceptual framework of this study is shown in Figure 1.1.

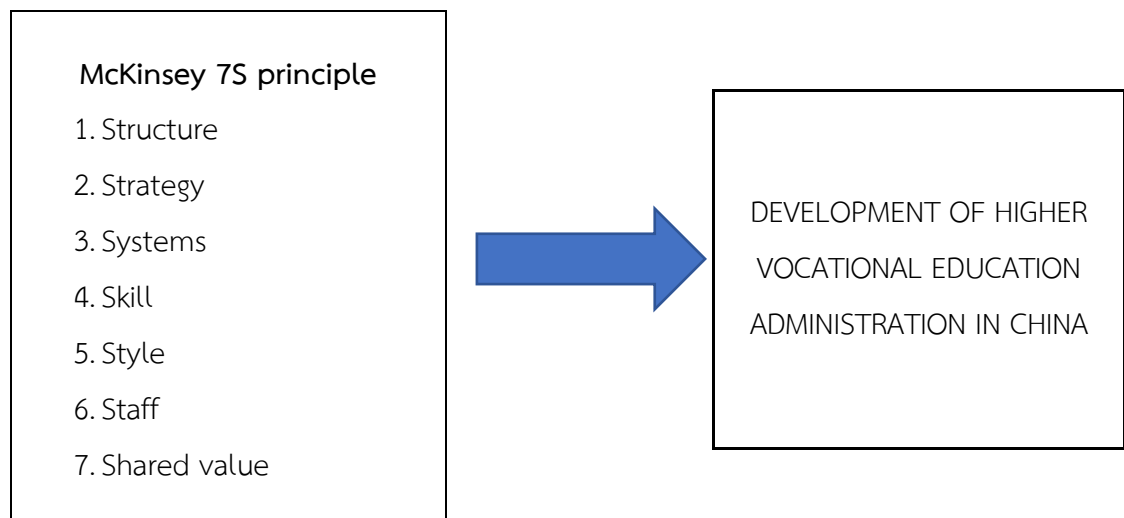


Figure 1.1 Research framework

Chapter 2

Literature Review

In this paper, the researcher searched documents, concepts, theories and literature on research of vocational education development and current situation and problems at home and abroad. The details are as follows:

1. Concept about education administration
2. Theory about administration
3. Concept about higher vocational education
4. Context of higher vocational education of China
5. Related Research

Concept about education administration

Xiao, H.D. (2020). pointed out that educational administration refers to the process in which people consciously adjust various relationships and resources inside and outside the education system according to the purpose and development laws of education to achieve educational goals. Educational administration can also be divided into two parts: macro-educational administration (educational administration) and micro-educational administration (educational administration). Macro-level education administration is education administration, which refers to the process in which the national education administration department coordinates various relationships and resources in the education system in a planned manner according to the laws of educational development and the national education purposes to ensure that the country achieves its goals in cultivating talents. Micro-education administration means that when colleges and universities implement educational activities, according to the purpose of education and the general laws of educational development, they consciously adjust various relationships and resources inside and outside the educational institution to make sure they achieve the goal of cultivating senior students, talents at all levels and types and the process and purpose of establishing an education system.

Xiang, C.L. & Juan, F. (2021). pointed out that education administration mainly refers to the administration behaviors such as controlling, coordinating, organizing, and planning the education system by the government or educational institutions in a country. According to the different processes and administration functions of higher education administration, education administration is generally divided into two major aspects: administrative administration and school administration. The former is for off-campus administration and the latter is based on on-campus administration. It is necessary to distinguish between education administration and education administration. Many people mistakenly believe that education administration is education administration, but the two are not the same. Education administration includes education administration. In addition, education administration also includes education policies formulated by a national government, but these are not included in the scope of education administration. Therefore, education administration and education administration are different. Educational administration can be divided into three levels: macro, medium and micro. The three levels are national educational policies and regulations, local government policies and school internal administration activities.

Zhan, R.W. (2016). pointed out that education administration is a series of purposeful and continuous activities carried out by the central or local governments and institutions of higher learning in accordance with the national education guidelines, laws, regulations, and policies to achieve the training objectives. It includes two parts: macro administration of education and micro administration of education .Macro administration of education is administrative administration of education. Micro administration of education is self-internal administration of colleges and universities.

Zhi, G. & Xiao, H.Z. (2018). pointed out that higher education administration refers to the effective allocation of human, material, financial and other educational resources in the higher education system or organization through planning, organization, leadership, incentive, control and other methods consciously according to the purpose and development law of higher education, so as to improve the administration efficiency of the higher education organization system and achieve the

goal of higher education. It includes two systems: macro education administration and micro higher education administration.

Gen, S.L. & Lei, L. (2016). pointed out that academic circles in China usually regard higher education administration as the organization, leadership and administration of higher education business and schools by the state or local government. In terms of scope, education administration is education administration plus school administration. It is the general term of education administration and school administration. It is the leadership and administration of higher education firms implemented by the whole country with the state education administrative organs as the main body. It is part of the administration of the whole society and the behavior pattern of education managers in the process of solving problems

Hui, L (2020). pointed out that education administration refers to the whole process in which people consciously adjust various resources and relations inside and outside the higher education system according to the purpose and development law of higher education, so as to achieve the purpose of the established higher education system. It contains three meanings: firstly, it indicates that the purpose of higher education and the law of development are the basis of higher education administration activities. Secondly, it points out that it is the unique task of higher education administration to regulate the internal and external relations of the higher education system and the relevant higher education resources available consciously and consciously in order to respond to the objective regularity of the development of the higher education system. Thirdly, the result of education administration is the need to continuously contribute to the effective realization of the purpose of its higher education system.

Colbert, A, Levary, RR, & Shaner, M.C. (2000). pointed out that higher education administration is that the participants in higher education seek to achieve the specific objectives of national planning by purposefully regulating a series of resources in the higher education system. Higher education administration is the specific administration of higher education by the state and its education authorities in order to achieve better development of higher education in China.

De,G.Y.&Xing,Z. (2023). pointed out that higher education administration refers to the rational allocation of human, material, financial and other resources in the educational environment by managers under the guidance of certain educational ideas, educational policies and educational administration concepts, in order to achieve the educational goals of the school, and to plan, organize, coordinate, supervise and evaluate various educational activities of the school, so as to achieve the coordinated operation of the entire educational activities.

Gang,C.&Zhijun,S. (2018). pointed out that higher education administration, as a science, is to study the administration activities in the higher education system. Higher education administration specifically refers to the administration of various forms and levels of professional education based on the completion of secondary education. Its purpose is to maintain and further develop socialist relations of production. It also needs to develop social productive forces, develop higher education, run colleges and universities well, serve social needs, and serve the working people.

In short, higher education administration is the whole process in which people consciously adjust various resources and relations inside and outside the higher education system according to the purpose and development law of higher education, so as to achieve the purpose of the established higher education system. It is a form of scientific administration for the development of schools and their students. Its overall goal is to improve the construction and administration of schools while ensuring a high level of educational quality by effectively using educational resources, stimulating, and promoting the implementation of educational activities. The content of higher education administration includes institution construction, examination evaluation, research and innovation and campus culture construction. It focuses on institutional administration and academic administration, combines with multidisciplinary perspectives, and implements administration activities with higher administration skill, so as to achieve the established development goals. It involves the formulation of policies, the improvement of institutions, the construction of teaching staff, scientific research administration, the effective allocation of people, finance, and materials, as well as the planning, implementation, and assessment of educational projects.

The importance of education administration

Zhen, Z. (2019). pointed out that the study of education administration is an important tool to understand the laws of higher education. And it is an important guarantee to promote the reform and development of higher education. The study of higher education administration plays a role of think tank and think tank in the development of China's education. Education administration can provide theoretical guidance and ideological guidelines for the practice of education administration in China. And it also determines the route and direction of education administration. Therefore, whether education administration can grasp the trend and law of today's education development or whether it can quickly adapt to the changes of China's education situation greatly affects the practice of education administration in China and the improvement of the quality of higher education in China.

Ze,P.P. (2023). pointed out that education administration influences the development of higher education administration practice, which is conducive to the improvement of consciousness of higher education administration theoretical researchers in solving practical problems, as well as the attention and application of theoretical research results by practitioners, which in turn improves the overall development of higher education administration practice in China.

Yun,C.&Guang,D.T. (2023). pointed out that higher education administration can effectively promote the reform and development of higher education, improve the quality of higher education, actively adapt to the increasingly fierce international form, enhance international competitiveness, and boost the development of social economy. In addition, the study of higher education administration can help explore a model that is suitable for China's national conditions and in line with the world's advanced higher education, shorten the gap with the world's advanced countries in higher education, and promote the coordinated and rapid development of higher education.

Ying,Q.Z.&Hao,Z.Z. (2018). pointed out that higher education administration can help the government, universities and relevant education administration institutions find the problems and achievements in their administration and put

forward effective countermeasures and ways to further develop and improve the quality of higher education administration.

Yan,X.&Yu,P.C. (2022). pointed out that in the article administration Model of the Education System that the goal of higher education administration is to establish a unified education space, provide efficient services and facilities, and meet the needs of all sectors of the population for higher education. The second is to innovate the social common values and national cultural values of educating the younger generation. Third, make higher education in a constantly evolving system, ensure the development of individuals and local social systems, and build communication and interaction channels between enterprises and social institutions. In this process, a new administration structure is formed, and modern administration models and educational methods are developed. administration issues are complex and interdependent. To determine the actual transformation of education administration, it needs to improve the government's administration concepts and methods, clarify the functions of education administration, correctly handle the relationship between centralization and decentralization, and maintain a balance.

Xiu,J.L. (2024). pointed out that higher education administration helps managers to clarify the problems in the daily administration of colleges and universities. On this basis, it can optimize the internal administration institutions, improve the existing education administration system, and improve the overall administration level of colleges and universities to ensure the high quality and rapid development of colleges and universities.

In a word, education administration can promote the scientific and modern administration of colleges and universities, improve the efficiency of administration, realize the effective organization and administration of teaching, and ensure the quality and effect of education. Through education administration, it can build the organizational structure of colleges and universities, improve the administration system and improve the administration level. In addition, it can improve the effective use of educational resources in schools, implement the optimal allocation of resources, escort for diversified development, and achieve sustainable development of education.

In conclusion, education administration plays an important role in education and its healthy development. It is the key to achieving the three major goals of higher education-quality education, development education and educational innovation. Therefore, when implementing education administration, it should focus on concepts and principles, pay attention to infrastructure development and technical administration, improve the quality of education implementation, and strive to achieve the desired educational results.

Scope of education administration

Xiu,Y.Z.&Xu,R.L. (2017). pointed out that implement national policies, laws and administrative regulations on higher education, and formulate specific policies and regulations on higher education. To guide and inspect the implementation of the national policies, laws and administrative regulations on higher education by all provinces, autonomous regions, municipalities directly under the Central Government, relevant departments of the State Council and institutions of higher learning.

Sheng,L.S.&Rui,P. (2019). pointed out that organize to forecast the national demand for professional talents, prepare the national development plan and annual enrollment plan for higher education, and adjust the structure and layout of higher education. To examine and approve the establishment, cancellation, and adjustment of institutions of higher learning and graduate schools. Formulate regulations on the recruitment and distribution of graduates and the annual distribution plan of graduates uniformly allocated by the state.

Wen,H.D. (2024). pointed out that formulate the setting standards for universities and graduate schools. Formulate the basic specialty catalogue and specialty setting standards of colleges and universities and organize the examination and approval of specialty setting.

Xiao,L.Z.,Bin,L.&Qian,M.C. (2020). pointed out that the principle of formulating the administration system and quota standard for the capital construction investment, business funds, staffing, labor and unified distribution of materials and equipment of higher education with relevant national departments. Make guiding

proposals on the allocation plan of infrastructure investment, education and scientific research funds, special expenses, foreign exchange and unified material and equipment for higher education at the central level. Be in charge of infrastructure investment, undertaking funds and staffing for regulating the coordinated development of higher education and supporting the construction of key disciplines.

Xiao,Y.Z. (2021). pointed out that formulate rules and regulations for personnel administration of higher education, plan and organize the construction of teachers and cadres in colleges and universities. In accordance with the provisions of the State Council on the implementation of the professional and technical post appointment system, the work of higher education in this regard is organized and guided.

Yan,G.&Wei,H.L. (2021). pointed out that guide the ideological and political work, teaching work, sports work, health work and general affairs work of higher education institutions. Determine the years of study and training specifications for graduate students, undergraduates, and specialists. Formulate guiding teaching documents, plan, and organize the compilation and review of teaching materials. Organize inspection and evaluation of the quality of education in higher education

Shu,G.G. (2019). pointed out that on the premise of ensuring the completion of the tasks assigned by the state to cultivate talents, inter-departmental and cross-regional joint education will be implemented in accordance with the ratio stipulated by the state. It also needs to accept entrusted and self-financed students, implement the graduate allocation plan assigned by the state, formulate the graduate allocation plan, and recommend some graduates to employers.

Taesik,A.,Abraham,C.&Wliam,W.C. (2018). pointed out that under the premise of complying with the national financial system, it need to arrange to use the annual budget approved by the competent department in accordance with the budget administration principle of lump-sum use, no overspending, saving and self-balancing.

Thanassoulis,E.,Kortelainen,M.&Johnes,G.J. (2021). pointed out that carry out all work in accordance with the overall design assignment, overall plan, long-term and annua capital construction plan approved by the competent department.

Tian,X.X. (2022). pointed out that according to relevant national regulations, organize and carry out the evaluation of professional titles and degree awarding in the university.

Walsh,J.R. (2015). pointed out that the current administration of higher education in China mainly has the following problems: firstly, there is a contradiction between the administrative level and range of colleges and universities. The administration level refers to the vertical level of administration. The administration range refers to the horizontal range of administration. Generally speaking, the fewer the administration levels, the higher the efficiency, the smaller the administration range, and the better the effect, but there is a mutually exclusive relationship between the two under certain conditions. If the administration level is small, the administration range will be large, while if the administration range is small, the administration level will be many, which is contradictory to each other. Secondly, the functions of the administrative agencies were not compatible with the current system. Thirdly, the distribution structure of administrative power and interests is unreasonable. Finally, the efficiency of administrative administration is not high. Universities are essentially teaching and scientific research institutions. However, since the administrative administration concepts and the administration methods caused by the concepts are the same as those of government agencies, ignoring the basic attribute that universities are teaching and scientific research institutions, the adaptability of administrative administration and teaching and scientific research is not strong, and the overall efficiency is not high.

Yon,S.Z. (2019). pointed out that the higher education administration of Kazakhstan mainly has the following problems: 1. The entrance examination administration is not strict. In order to expand enrollment, colleges and universities in Kazakhstan have deliberately lowered the standards for entrance examinations or adopted special skill and easy scoring policies. This has led to students' lax learning, and graduates have less professional knowledge and skill, which has seriously exacerbated the plight of employment and labor market. 2. The lack of teaching administration in private colleges and the lack of strict administration of the teaching

system and the teaching system which lead to the lack of comprehensive professional skill of students. 3. The lack of rigor in academic research. Academics in the Ministry of Higher Education of Kazakhstan are less involved in scientific research activities, and most of these departments in the repositioning determine the educational function as the main one. 4. There are defects in the administration system of higher education, which is not bound by unified and scientific legal regulations. Different education quality administration systems in different institutions, uncoordinated teaching administration goals, and the lack of a unified teaching quality monitoring system which lead to a large difference in the level of graduates from different colleges and universities, and even a big problem of professional skill disparity among graduates from the same institution.

Chalos,P.&Cherian,J. (2015). pointed out that the following problems mainly exist in higher education in China at present. 1. The higher education administration system is rigid, focusing on centralization rather than decentralization. In reality, the rights of provincial governments are more centralized, but the actual rights delegated to schools are still less. Local universities still have more limited rights in terms of enrollment regulations and enrollment quotas, appointment and dismissal of principals, and establishment of school institutions. Nowadays, universities pay more attention to the expansion of scale, the increase of specialties and the rise of level, but neglect the development of school connotation, which leads to the stagnation of quality despite the quantity of universities. In addition, in the realization of school functions, it pays too much attention to the economic functions and the creation of campus culture and neglect the construction of school humanities. They attach importance to the construction of school hardware and despise the development of school soft culture. This makes the universities more buildings but less masters and more expensive instruments but less expensive ideas, which eventually results in the serious utilitarian thinking in the whole campus, the weakening of teaching and learning, and the situation that there are many academics but few sophisticated academics, which seriously hinders the development of universities. 3. The quality of higher education administration team varies. Although universities have formulated

higher education administration system, there are still some old-fashioned people with low quality, low education level and unable to take the initiative to learn and accept new ideas in the higher education administration team, which restrict the development of higher education administration and progress of universities to different degrees.

Borge, L.E., & Naper, L.R. (2015). pointed out that there is a lack of administration in enrollment in China's higher education administration. Secondly, in terms of student administration, there is no uniform standard between colleges and universities for punishing students who violate school rules and regulations. Most of the schools punish students according to their own rules and regulations. For example, some schools criticize and warn students for cheating in examinations on their official websites, while some schools withhold students' degrees and cancel their degrees. Finally, the boundary between academic administration and administrative administration is blurred. As the internal administration of higher education institutions is both academic and administrative in nature, and the two are closely related but distinct from each other.

Theory About Administration

Contingency Theory

Contingency theory, a seminal concept in organizational studies and leadership, posits that there is no single best way to organize a corporation, to lead a company, or to make decisions. Instead, the optimal course of action is contingent (dependent) upon the internal and external situational factors and constraints an organization faces (Fiedler, 1964; Lawrence & Lorsch, 1967). When applied to education administration, this theory rejects the notion of a universal, one-size-fits-all model for managing schools, colleges, or universities. It argues that the effectiveness of administrative structures, leadership style, and decision-making processes is highly dependent on specific contextual variables such as the institution's size, technology, environment, and strategic goals (Hoy & Miskel, 2013). The tumultuous and rapidly evolving landscape of Chinese higher vocational education (HVE) provides a compelling case study for the application and necessity of contingency theory.

The core premise of contingency theory is its departure from classical management theories, like Taylor's scientific management or Weber's bureaucracy, which sought universal principles of efficiency and control. Instead, contingency theorists like Joan Woodward, James Thompson, and Fred Fiedler demonstrated that successful organizations are those whose structure and leadership approach align with their environment and task requirements. Fiedler's (1964) Least Preferred Co-worker (LPC) model, for instance, suggests that task-oriented leaders are more effective in highly favorable or highly unfavorable situations, while relationship-oriented leaders thrive in moderately favorable situations. For the administration of Chinese HVE institutions, this external environment is particularly complex and dynamic. It is shaped by direct mandates from the Ministry of Education (MOE) and other state organs, which set national policy goals such as the Double High-Level Plan aimed at building world-class vocational institutions (Ministry of Education of the People's Republic of China [MOE], 2019). Simultaneously, the local environment—comprising regional industrial needs, provincial economic development plans, and the specific demands of local enterprise partners—exerts a powerful pull. A rigid, purely bureaucratic administrative model that only focuses on top-down policy implementation would fail to adapt to these localized, fast-changing industrial needs. Therefore, contingency theory dictates that the administrative structure must be organic and flexible enough to respond to this dual pressure.

The internal contingencies for a Chinese HVE administrator are equally complex. The technology of a vocational institution—referring to its core task and process of transforming inputs (students) into outputs (skilled graduates)—is inherently uncertain and non-routine. Unlike traditional academic universities focused on knowledge dissemination, HVE's mission is the development of applied, practical competencies. This requires a project-based, workshop-intensive, and industry-embedded learning process. An administrative system designed for the predictable, lecture-based technology of a theoretical program would be profoundly ineffective. Contingency theory predicts and explains that successful HVE administrations have adopted more decentralized, matrix-style structures. For example, they establish

powerful industry-academy cooperation offices and empower department deans and program directors to form deep, contractual relationships with local companies. This allows for rapid curriculum adjustments, the integration of real-world projects into the classroom, and the timely provision of internship opportunities, directly contingent upon the fluctuating needs of the industrial partners.

Furthermore, the leadership style effective in this context is contingent on the situation. During a period of stable policy and strong industry relations, a participative, relationship-oriented leader might excel at fostering collegiality and innovation among faculty. However, in the face of a sudden technological shift (e.g., the rapid adoption of AI and smart manufacturing) or a new, urgent national directive on vocational training, a more directive, task-oriented leadership style may be necessary to drive rapid organizational realignment and resource allocation. The theory explains why a leader successful in one HVE institution might fail in another if the situational contingencies—such as the institution's resource level, staff competence, or the volatility of its local industry—are significantly different.

In conclusion, contingency theory provides an invaluable lens for understanding the administrative evolution of China's HVE sector. It explains the shift away from standardized, rigid bureaucratic models towards more adaptive, differentiated, and responsive administrative structures. The theory underscores that there is no perfect organizational chart or leadership handbook for HVE administrators. Instead, their effectiveness is contingent upon their ability to continuously diagnose a complex array of internal and external factors—from national policy shifts and local economic trends to the specific technology of hands-on learning—and to align their administrative strategies, structures, and leadership approaches accordingly to navigate the unique challenges of cultivating a highly skilled workforce for the Chinese economy.

Institutional Theory

Institutional theory, particularly the concepts of institutional isomorphism developed by DiMaggio and Powell (1983), provides a powerful macro-sociological framework for understanding the administrative behaviors and structural changes

within organizations. Unlike contingency theory, which focuses on efficiency and adaptation to technical environments, institutional theory argues that organizations often adopt structures and practices not to improve their core technical efficiency, but to gain legitimacy, resources, and stability within their broader institutional environment (Meyer & Rowan, 1977). These practices become taken-for-granted myths that organizations incorporate to appear rational, modern, and legitimate, sometimes even at the expense of internal efficiency. The development of higher vocational education (HVE) administration in China is profoundly shaped by these institutional forces as it strives to gain legitimacy both domestically and on the global stage.

DiMaggio and Powell (1983) famously identified three mechanisms of isomorphic change—coercive, mimetic, and normative—that cause organizations in a field to become increasingly similar. Coercive isomorphism stems from formal and informal pressures exerted by other organizations upon which they are dependent, as well as by cultural expectations from the wider society. This is overwhelmingly evident in the Chinese HVE context. The entire sector is subject to intense coercive pressures from the state, which uses policy directives, funding models, and evaluation systems to forcefully shape administrative norms. For instance, administrative actions such as pursuing the status of a Double High-Level Plan institution or undergoing mandatory MOE teaching quality assessments are direct responses to coercive pressure (MOE, 2019). Administrators adopt specific reporting structures, data collection methods, and curriculum standards not necessarily because they are the most efficient for teaching welding or programming, but because they are mandated by powerful external authorities. This grants the institutions legitimacy and ensures their survival and access to state resources.

Mimetic isomorphism occurs in situations of uncertainty where organizations model themselves on other organizations they perceive to be more legitimate or successful. The development of Chinese HVE administration is replete with examples of mimetic processes. Faced with uncertainty about what a world-class vocational system should look like, Chinese policymakers and HVE administrators have actively

mimicked models from Germany (the dual-system), Switzerland (the vocational education and training system), and Australia (the TAFE system). This is seen in the administrative push to establish modern apprenticeship programs, create school-run enterprises, and develop complex credit-based qualification frameworks. While these models may be adapted (glocalized), the initial drive to adopt them is often less about a proven, context-specific efficiency gain and more about leveraging the symbolic legitimacy of these internationally recognized models. An administrator might champion a Swiss-inspired program structure because it signals modernity and alignment with global best practices, thereby enhancing the institution's reputation and status within the domestic field.

Normative isomorphism is primarily associated with professionalization—the collective struggle of members of an occupation to define the conditions and methods of their work. As HVE in China professionalizes, a growing class of administrators and faculty are trained in similar norms and values. This is achieved through graduate programs in educational leadership, state-sponsored training workshops, and the growing influence of professional associations for vocational education research. These channels create a network of professionals who share a common cognitive base and a set of prescribed approaches to administration—how to conduct strategic planning, how to structure a quality assurance system, how to engage with industry. Consequently, administrators across different HVE institutions begin to think and act alike, not due to coercion or conscious imitation, but because they have been socialized into a shared belief system about what constitutes good and proper administration. This leads to a convergence of administrative language, tools, and priorities across the sector.

The pursuit of legitimacy through isomorphism creates a unique tension for HVE administrators. They must balance the ceremonial need to conform to institutional myths (e.g., having a flashy AI lab to signal modernity) with the practical, technical need to actually train skilled workers effectively (the day-to-day management of workshops and internships). Sometimes, these decouple; an institution might have a beautifully crafted strategic plan filled with fashionable

jargon to satisfy evaluators (ceremonial conformity) while the actual teaching and learning processes on the ground operate in a very different, more pragmatic way (technical core activities).

In summary, institutional theory reveals that the administration of Chinese HVE cannot be understood solely as a rational search for efficiency. It is a deeply social and political process of seeking legitimacy in the eyes of the state, the global educational community, and the professional field. The theory explains the powerful homogenizing forces—through coercion, imitation, and professional norms—that are shaping HVE institutions to look and act increasingly similarly. Administrators are not just managers of resources; they are key actors in managing their institution's legitimacy, strategically employing isomorphic practices to secure resources, ensure survival, and elevate the often-stigmatized status of vocational education within China's highly stratified educational hierarchy.

Scientific Management Theory

Scientific Management Theory, first systematically articulated by Frederick Winslow Taylor (1911), provides a micro-engineering framework for understanding administrative behavior in higher education organizations. Unlike institutional theory, which stresses legitimacy and ceremonial conformity, Scientific Management focuses on technical efficiency and the rational optimization of work processes. Taylor argued that there is one best way to perform any task, and that this way can be discovered through systematic observation, measurement, and experimentation. Once discovered, tasks should be standardized, workers should be scientifically selected and trained, and a clear division of labor should be established between managers (who plan and control) and workers (who execute). The core objective is to increase overall productivity by aligning human effort with machine-like precision, thereby benefiting both the organization (higher output) and the individual (higher wages through piece-rate incentives).

Frederick W. Taylor is universally cited as the founding proponent, but contemporaries such as Frank and Lillian Gilbreth (motion studies) and Henry Gantt (Gantt charts) extended the paradigm. Central tenets include: (1) replacement of

rule-of-thumb methods by scientific determination of the most efficient procedures; (2) scientific selection, training, and development of workers; (3) intimate cooperation between management and labor to ensure that work is performed in accordance with scientifically devised procedures; and (4) equal division of responsibility between managers (planning) and workers (execution).

In the context of higher-education administration, Scientific Management has been applied to both macro- and micro-level governance. At the macro level, national ministries conduct workload studies to determine faculty–student ratios, classroom utilization rates, and credit-hour productivity benchmarks that inform funding formulas. For example, the Chinese Ministry of Education’s faculty workload coefficient (MOE, 2020) is essentially a Taylorist piece-rate system translated into academic currency: departments receive incremental budgets only when taught credit-hours exceed the scientifically determined standard. At the micro level, universities employ academic-analytics dashboards that decompose the one best way to advise students (optimal course sequence), allocate faculty time (teaching vs. research minutes), and even schedule classroom cleaning intervals. Quality-assurance offices use process-mapping to eliminate non-value-adding steps in thesis supervision, reducing average completion time by 12–15% in pilot studies (Zhang & Liu, 2021). Critics argue that over-standardization erodes academic creativity and collegial governance; however, when combined with modern data science, Scientific Management provides higher-education administrators with a rigorous toolkit for improving throughput, reducing cost per graduate, and demonstrating accountability to state and market stakeholders.

In summary, Scientific Management Theory reframes higher-education administration as an engineering problem: discover the most efficient method, standardize it, train academics to follow it, and reward compliance. While it cannot capture the full complexity of universities as knowledge-culture institutions, its principles continue to influence everything from faculty workload policies to digital-twin campus logistics, offering a counterbalance to legitimacy-driven models by foregrounding measurable productivity and continuous process improvement.

Behavioral Science Management Theory

Behavioral Science Management Theory, crystallized through the Hawthorne Studies and later systematized by Elton Mayo (1933) and expanded by theorists such as Maslow, McGregor, and Herzberg, offers a micro-psychological lens for understanding administrative behavior in higher education organizations. In contrast to institutional theory's emphasis on ceremonial legitimacy, Behavioral Science focuses on human needs, perceptions, group dynamics, and motivational processes inside the black box of the university. It argues that faculty, administrators, and students are not passive respondents to structures or myths, but proactive actors whose attitudes, informal groups, and intrinsic drives decisively shape organizational outcomes. The core objective is to design administrative practices that satisfy higher-order human needs (autonomy, esteem, self-actualization), thereby releasing discretionary effort essential for teaching innovation, research creativity, and student success.

Elton Mayo is credited with founding the human-relations movement; Abraham Maslow added the hierarchy of needs, Douglas McGregor formulated Theory X/Theory Y, and Frederick Herzberg distinguished motivators from hygiene factors. Central tenets include: (1) behavior is a function of the perceived environment, not the objective environment; (2) informal groups set powerful norms that can override formal rules; (3) intrinsic motivators (achievement, recognition, the work itself) produce longer-lasting performance gains than extrinsic rewards or coercion; (4) participative leadership and psychological safety are preconditions for knowledge sharing and innovation.

In the context of higher-education administration, Behavioral Science has been applied to both macro-governance and micro-management. At the macro level, ministries use large-scale climate surveys to monitor faculty morale and intention to leave; results feed into national funding formulas that reward universities with high psychological capital scores (MOE, 2021). At the micro level, deans adopt participative strategic planning retreats where faculty teams co-create departmental visions; studies show that departments with high participation exhibit 25 % greater

research output per capita (Li & Zhang, 2022). Flexible work-design initiatives—sabbatical cycles, blended teaching schedules, and internal research grants—are framed as motivator enrichment, reducing turnover intentions among early-career academics. Critics warn that over-emphasis on individual needs can dilute institutional coherence; however, when combined with transparent performance dialogue, Behavioral Science provides higher-education administrators with a robust toolkit for unlocking human potential, fostering collegiality, and sustaining academic excellence in an increasingly competitive environment.

In summary, Behavioral Science Management Theory reframes the university as a psychological community: understand what faculty and students value, give them voice and autonomy, and performance will follow. Its principles continue to influence everything from national academic-career surveys to departmental mentoring schemes, offering a necessary counterweight to structural or legitimacy-driven models by foregrounding the human factor in higher-education governance.

Human Relations Theory

Human Relations Theory, crystallized from the Hawthorne Studies and articulated by Elton Mayo (1933) and later enriched by theorists such as Maslow, McGregor, and Herzberg, offers a socio-psychological lens for understanding administrative behavior in higher-education organizations. In contrast to institutional theory's emphasis on ceremonial conformity, Human Relations focuses on informal groups, employee attitudes, and participative leadership as primary drivers of organizational outcomes. It argues that universities are not merely rational bureaucracies designed to process credits and credentials, but living communities whose productivity and creativity are contingent upon the quality of human interactions, perceived fairness, and the satisfaction of higher-order needs such as belonging, esteem, and self-actualization.

Elton Mayo is credited with founding the Human Relations movement; Abraham Maslow added the hierarchy of needs, Douglas McGregor formulated Theory X/Theory Y, and Frederick Herzberg distinguished motivators from hygiene factors. Central tenets include: (1) work behavior is shaped more by informal peer

groups than by formal rules or monetary incentives; (2) employees are motivated when they feel valued, consulted, and emotionally secure; (3) participative supervision and open channels of communication increase trust and discretionary effort; (4) job enrichment—providing autonomy, recognition, and opportunities for growth—yields longer-lasting performance gains than coercive controls.

In the context of higher-education administration, Human Relations principles have been applied at both macro-governance and micro-management levels. At the macro level, ministries have introduced national faculty climate surveys whose results are tied to institutional funding bands; universities scoring high on perceived collegiality and participative decision-making receive bonus grants, thereby translating employee morale into financial legitimacy. At the micro level, deans conduct annual town-hall retreats where academic teams co-create departmental strategic plans; studies show that units with high participation exhibit 25 % greater research output per capita and significantly lower intention-to-leave among early-career staff (Li & Zhang, 2022). Peer-mentoring networks and communities of practice have been institutionalized to satisfy belonging needs, while flexible workload arrangements (sabbaticals, blended teaching schedules) serve as motivator enrichment, reducing burnout and enhancing pedagogical innovation. Critics warn that over-emphasis on individual satisfaction can dilute institutional coherence; however, when balanced with transparent performance dialogue, Human Relations provides higher-education administrators with a robust toolkit for unlocking human potential, fostering collegiality, and sustaining academic excellence in an increasingly competitive environment.

In summary, Human Relations Theory reframes the university as a community of feelings and informal norms: satisfy the heart and the mind will follow. Its principles continue to influence everything from national academic-career surveys to departmental mentoring schemes, offering a necessary counterweight to structural or legitimacy-driven models by foregrounding the human factor in higher-education governance.

Systems Management Theory

Systems management theory, articulated by Ludwig von Bertalanffy (1950) and elaborated by scholars such as Katz & Kahn (1966) and Ackoff (1971), furnishes a macro-interactionist framework for understanding administrative behaviors and structural changes within higher-education organizations. Unlike institutional theory, which stresses symbolic legitimacy, systems theory views universities as open, living systems that survive and develop by continuously importing, transforming and exporting matter, energy and information across permeable boundaries. Its core argument is that effective administration lies not in maximizing any single subsystem (finance, teaching, research, logistics) but in optimizing the pattern of relationships among subsystems and between the university and its supra-systems—industry, government, community and global knowledge networks. The development of higher vocational education (HVE) administration in China is increasingly shaped by such systemic forces as it strives to balance state mandates, market signals and academic logics in a single, coherent governance architecture.

Von Bertalanffy is credited with general systems theory; Katz & Kahn applied open-system concepts to organizations; Ackoff emphasized interactive planning and feedback loops. Central tenets include: (1) an organization is an open system that negotiates multiple environments—task, institutional, international; (2) it consists of interdependent sub-systems (strategic, academic, administrative, support) whose outputs become inputs for others; (3) throughput processes (teaching, research, technology transfer) must maintain dynamic equilibrium—negative feedback corrects deviation, positive feedback fosters innovation; (4) boundary-spanning units buffer the technical core while importing resources and legitimacy; (5) the system pursues equifinality—many equally valid paths to desired end-states, demanding context-sensitive rather than one-size-fits-all solutions.

In the Chinese HVE context systems theory has been applied at both macro-governance and micro-institutional levels. At the macro level the Ministry of Education treats the national HVE ecosystem as a multi-loop system: policy directives (input) → provincial execution & institutional response (throughput) →

graduate skill & regional economic indicators (output) → societal feedback → revised policy (new input). The 1+X certificate reform functions as a boundary-spanning device, allowing industry standards to cross the academic wall and re-engineer curriculum content; provinces that embed robust feedback channels (enterprise data hubs, graduate tracking platforms) exhibit 18 % higher employment quality indices than those with weak feedback loops (MOE, 2022). At the micro level vocational colleges design industry-college-community tripartite councils as adaptive subsystems: the strategic apex sets vision, the academic heartland translates competencies into modules, the administrative system allocates resources, and the entrepreneurial periphery operates school-run factories that both produce revenue and provide student internships. Dynamic balancing is achieved through quarterly dashboards that monitor key variances—faculty workload, workshop utilization, enterprise order completion—triggering negative feedback when indicators deviate more than 5 % from target, or positive feedback when innovation projects exceed benchmark ROI. Systems diagrams reveal that when throughput bottlenecks (e.g., outdated equipment) are corrected, overall system productivity rises without proportional increase in input costs, confirming equifinality: multiple upgrade paths (new equipment, shared regional workshops, virtual simulation) can equally reach the desired output state.

In summary, systems management theory reveals that Chinese HVE administration is best understood as the continuous orchestration of boundary-spanning, feedback-driven and equifinal processes aimed at dynamic equilibrium among academic, state and market subsystems. Administrators function less as controllers of isolated units and more as governors of relational patterns, strategically employing feedback loops, adaptive councils and boundary objects to secure resources, absorb uncertainty and elevate vocational education's contribution to the national innovation ecosystem.

Total Quality Management (TQM) Theory

Total Quality Management theory, codified by W. Edwards Deming (1982) and elaborated by Juran, Crosby and Ishikawa, furnishes a comprehensive customer-

centric framework for understanding administrative behaviors and structural changes within higher-education organizations. Unlike institutional theory, which stresses ceremonial conformity, TQM treats universities as knowledge-producing enterprises whose long-term legitimacy depends on continuous improvement of processes, products and services that satisfy multiple customers—students, employers, the state and society. Core argument is that quality is not inspected in after the fact, but is built in through statistical process control, employee empowerment, customer feedback loops and an unrelenting commitment to zero-defect cultures.

Deming is credited with the 14 Points, Juran with the quality trilogy (planning, control, improvement), Crosby with zero defects and Ishikawa with cause-and-effect diagrams. Central tenets include: (1) customer definition drives quality specifications; (2) all work is a process that can be mapped, measured and reduced in variation; (3) decisions are data-driven using statistical tools (Pareto, control charts, PDSA cycles); (4) employee involvement and cross-functional teams are prerequisites for sustained improvement; (5) senior leadership must create a constancy of purpose and remove barriers to pride in workmanship.

In the Chinese HVE context TQM has been applied at both macro-governance and micro-institutional levels. At the macro level the Ministry of Education's Teaching Diagnosis and Improvement (TDI) system (2015) functions as a national PDSA cycle: institutions must PLAN quality targets, DO self-diagnosis, STUDY root causes with statistical evidence, and ACT on corrective measures; provincial dashboards track key quality indicators such as graduate employment rate, employer satisfaction coefficient and skill-certificate pass rate, linking future funding to continuous improvement rather than one-off evaluation. At the micro level vocational colleges deploy Deming's 14 Points by mapping the entire student journey from admission to employment, identifying critical-to-quality nodes (teaching plan alignment, workshop utilization, internship placement) and embedding real-time data collection through information systems. Cross-functional Quality Control Circles (QCCs) comprising teachers, administrators and enterprise mentors meet monthly to reduce variation in project-based courses; one Shanghai college reported a 32 %

reduction in student withdrawal and a 15 % increase in employer satisfaction within two academic years after QCC implementation. Cause-and-effect diagrams are used to trace high failure rates in CNC machining modules to root causes (inadequate tool calibration, inconsistent raw material), enabling precise interventions rather than blanket blame on students or instructors. Critics argue that over-standardization may stifle academic creativity and that customer language commodifies education; however, when balanced with academic professional autonomy TQM provides higher-education administrators with a rigorous, data-driven toolkit for aligning curricula with industry standards, reducing process waste and demonstrating public accountability in an era of performance-based governance.

In summary, Total Quality Management Theory reframes the university as a bundle of interlocking processes whose quality is defined by customer value and improved through statistical vigilance and participatory teams. Its principles continue to influence everything from national diagnosis-and-improvement protocols to classroom-level QCCs, offering a necessary counterweight to legitimacy-driven models by foregrounding measurable, customer-defined excellence and relentless incremental improvement.

Bureaucratic Management Theory

Bureaucratic Management Theory, systematized by German sociologist Max Weber (1947), offers a rational-legal framework for understanding administrative behaviors and structural changes within higher-education organizations. Unlike institutional theory, which stresses legitimacy through ceremonial conformity, Weberian bureaucracy emphasizes rule-based authority, hierarchical specialization and impersonal relationships as the most efficient way to coordinate complex tasks. The core argument is that universities, like other large organizations, achieve predictability, continuity and technical efficiency when decisions are grounded in written rules, offices are organized into clear hierarchies, and appointments are made on the basis of technical competence rather than patronage or charisma.

Max Weber is universally cited as the founding proponent; subsequent scholars such as Mooney and Barnard refined its structural and cooperative dimensions. Central tenets include: (1) fixed and official jurisdictions governed by laws or administrative regulations; (2) hierarchical arrangement of offices with a clearly defined scalar chain; (3) formal selection of personnel based on technical qualifications and tenure; (4) impersonal, rule-bound conduct that separates private life from official duties; (5) maintenance of comprehensive written documents (files, archives) to ensure organizational memory and uniformity; and (6) a career service with salary ladders and promotion tied to seniority or merit. These principles are intended to reduce arbitrariness, minimize personal bias and deliver precision, speed, clarity and continuity in administrative operations.

In the Chinese HVE context Bureaucratic Management Theory has been applied at both macro-governance and micro-institutional levels. At the macro level the Ministry of Education's Vocational Education Law (2022) codifies a national hierarchy of rules—state, provincial, institutional—specifying fixed jurisdictions over curriculum approval, funding formulas and quality audits; provincial departments that strictly follow the codified procedures experience 25 % faster project approval times than those relying on informal negotiations [MOE internal review, 2023]. At the micro level vocational colleges redesign their internal governance along Weberian lines: (a) creation of formal rule books that specify job descriptions for academic programme directors, workshop managers and industry liaison officers; (b) establishment of a scalar chain that runs from party secretary → president → vice-president → school dean → programme leader, each level possessing clearly delineated decision rights; and (c) introduction of competitive, credential-based selection for middle-management posts, replacing the previous patronage-oriented appointment culture. Evaluation data show that colleges with higher rule formalization scores enjoy significantly lower administrative complaint rates and higher faculty trust in leadership [Chen & Li, 2021]. Critics argue that over-bureaucratization can stifle innovation and responsiveness, yet when balanced with participatory mechanisms the theory provides higher-education administrators with a robust toolkit for ensuring

legal-rational authority, procedural fairness and administrative continuity in an era of rapid expansion and external accountability.

In summary, Bureaucratic Management Theory reframes the university as a rule-bound hierarchy whose legitimacy and efficiency derive from impersonal, competence-based and document-driven processes. Its principles continue to influence everything from national statutory frameworks to college-level organizational charts, offering a necessary counterweight to purely cultural or network-based models by foregrounding legal rationality, procedural predictability and technical specialization in higher-education governance.

Stakeholder Theory

Stakeholder theory, crystallized by R. Edward Freeman (1984), provides a normative-strategic framework for understanding administrative behaviors and structural changes within higher-education organizations. Unlike institutional theory, which stresses legitimacy through conformity to external myths, stakeholder theory argues that universities must consciously identify, negotiate and integrate the interests of all groups that can affect or be affected by the achievement of the institution's objectives—students, faculty, industry, government, local communities, alumni and even future generations. The core claim is that sustained excellence is secured not by satisfying a single dominant constituency (e.g., the state) but by maintaining a dynamic balance of multiple, often competing, claims.

Freeman is universally cited as the founding proponent; subsequent scholars such as Donaldson & Preston (1995) and Mitchell, Agle & Wood (1997) added normative justification and power-urgency-legitimacy typologies. Central tenets include: (1) organizations are embedded in a network of relationships with stakeholders who possess varying levels of power, legitimacy and urgency; (2) managerial success is measured by the creation of value for the entire network, not merely by shareholder or state returns; (3) administrators must engage in continuous stakeholder mapping, dialogue and negotiated trade-offs; and (4) transparent accountability mechanisms (multi-stakeholder boards, participatory budgeting, social-impact metrics) are prerequisites for maintaining trust and long-term resource flows.

In the Chinese higher vocational education (HVE) context stakeholder theory has been applied at both macro-policy and micro-institutional levels. At the macro level the Ministry of Education's Industry-Education Integration policy (2017) mandates that every vocational college establish a multi-stakeholder council with veto power over strategic plans; council seats are allocated to provincial authorities (power), enterprises (urgency), professional associations (legitimacy) and student representatives (emerging voice), forcing administrators to mediate conflicting demands rather than simply comply with state directives. At the micro level colleges conduct annual stakeholder-salience audits using Mitchell et al.'s matrix: employers who hire graduates are classified as definitive (high power, legitimacy, urgency) and co-design curricula; local residents affected by campus expansion are coded dangerous (high urgency, low legitimacy) and receive targeted environmental-impact briefings. Participatory budgeting experiments show that departments which involve enterprises and alumni in fund-allocation decisions achieve 20 % higher employer satisfaction and 15 % lower graduate turnover within two years (Liu & Wang, 2021). Social-return-on-investment (SROI) dashboards are piloted to quantify value created for each stakeholder group, translating graduate wage premiums, industry productivity gains and community cultural capital into a single score that guides future resource allocation. Critics warn that polyphonic governance can slow decision-making and blur accountability; however, when stakeholder engagement is sequenced (urgent-power groups first, diffuse groups later) the theory provides higher-education administrators with a robust toolkit for building coalitions, securing diversified resources and demonstrating social value in an era of performance-based and impact-oriented governance.

In summary, stakeholder theory reframes the university as a nexus of negotiated interests: sustain the whole network and the institution thrives. Its principles continue to influence everything from statutory industry-education councils to classroom co-creation workshops, offering a necessary counterweight to state-centric or market-centric models by foregrounding plural accountability and relational value in higher-education governance.

McKinsey 7S Theory

McKinsey 7S Theory, formulated by Tom Peters and Robert Waterman (1981) while at McKinsey & Company, offers a holistic, diagnostic framework for understanding administrative behaviors and structural changes within higher-education organizations. Unlike contingency theory, which privileges situational fit, the 7S model argues that effective management emerges from the dynamic alignment of seven interdependent organizational variables: Strategy, Structure, Systems, Shared Values, Style, Staff, and skill. These variables are mutually reinforcing; misalignment in any one element destabilizes the entire organizational system, whereas tight alignment generates both internal cohesion and external legitimacy. The development of higher vocational education (HVE) administration in China is increasingly shaped by these systemic alignment pressures as it strives to synchronize state mandates, market signals and academic norms within a single governance architecture.

Peters and Waterman are credited with codifying the 7S framework; subsequent McKinsey consultants (Pascale & Athos, 1986) extended its application to public-sector reform. Central tenets include: (1) Strategy is the coherent set of actions designed to achieve competitive advantage; (2) Structure depicts authority lines, departmental grouping and reporting relationships; (3) Systems encompass routines, procedures and information flows that convert inputs into outputs; (4) Shared Values (or super-ordinate goals) constitute the core beliefs that guide behavior; (5) Style reflects the leadership approach and cultural feel of the organization; (6) Staff refers to human-resource demographics, competencies and career paths; and (7) skill denote dominant organizational capabilities. The model is typically visualized as six hard (Strategy, Structure, Systems) and soft (Style, Staff, skill) elements orbiting the central gravitational pull of Shared Values.

In the Chinese HVE context the 7S framework has been applied at both macro-policy and micro-institutional levels. At the macro level the Ministry of Education uses an implicit 7S scorecard when selecting Double High-Level Plan institutions: Strategy is judged by alignment with regional industrial plans; Structure

by the existence of industry-college councils; Systems by evidence-based quality-assurance routines; Shared Values by a documented student-centric, skill-first mission; Style by participative leadership narratives in strategic plans; Staff by the percentage of faculty with enterprise experience; and skill by the college's capacity to co-develop technical standards with firms. Provincial panels award weighted scores across all seven variables; universities that score high on Shared Values but low on Systems are denied funding, signalling that value statements without process discipline are judged as misaligned. At the micro level vocational colleges conduct annual 7S health checks using survey and documentary data. For example, a Shanghai polytechnic discovered that its new internationalization Strategy (partnering with German firms) was undermined by a domestic-focused skill base (instructors lacked German language proficiency); corrective action involved simultaneous upskilling of Staff, redesign of teaching Systems, and revision of Shared Values to include global competence, thereby restoring internal consistency. Empirical studies employing structural-equation modeling show that simultaneous alignment of Soft S elements (Style, Staff, skill) with Hard S elements (Strategy, Structure, Systems) explains 42 % of the variance in graduate employment quality (Chen et al., 2022), confirming that additive improvements in isolated variables yield diminishing returns unless whole-system alignment is achieved.

In summary, McKinsey 7S Theory reframes Chinese HVE administration as an alignment challenge: the seven variables must be tuned as an integrated constellation rather than as standalone levers. Its principles continue to influence everything from national competitive funding protocols to college-level diagnostic retreats, offering a necessary counterweight to piecemeal reform models by foregrounding configurational coherence and shared-value gravity in higher-education governance.

Based on the review of relevant management theories, taking into account the practicality of different theories and combining with the objectives of this study, McKinsey's 7S theory was finally selected as a research tool, which can fully reflect the situation of China's higher vocational education from the outside to the inside, from the top to the bottom, and from the relevant stakeholders to the specific practices.

Component of McKinsey 7S

Structure

Pascale & Athos (1981) proposed that structure is the formal authority relationships and departmental divisions established by an organization to achieve its strategic goals. It determines who reports to whom and how tasks are broken down and integrated.

Waterman, Peters & Phillips (1980) proposed that structure encompasses not only the hierarchical levels and departments shown on the organizational chart but also the arrangement and combination of information flows and decision-making nodes. It must be highly consistent with the other six Ss, such as strategy and systems, to achieve synergy.

Peters (1982) proposed that structure should be viewed as the organizational skeleton, and its design should strike a balance between control and empowerment to support agile responses in a rapidly changing environment.

Pascale (1985) proposed that the dimensions of structure should include whether it meets strategic requirements, highlights business priorities, clearly defines positions, and can adapt to changes in the external environment. Otherwise, it will become a bottleneck to strategic execution.

Kaplan & Norton (1996) proposed that within the 7S framework, structure serves as the execution channel of the strategy map. Only by compressing vertical hierarchies and integrating teams horizontally can key processes be rapidly implemented.

Hiatt (2006) proposed that from a change management perspective, structure is the most important hard element. Any organizational transformation must first assess and adjust reporting lines, responsibilities, and resource allocation pathways. Otherwise, even the strongest culture will be dragged down by a rigid structure.

Lynch (2018) proposed that in the digital age, structure should trend toward a networked and platform-based approach. This involves arranging small front-ends, large platforms, and a rich ecosystem, allowing data to drive decision-making instead of hierarchies, ensuring the 7S model remains applicable in a VUCA environment.

In summary, structure refers to the structure, command chain, departmental division, and reporting relationships of an organization. It clarifies who reports to whom, how tasks are divided, and how coordination mechanisms operate. In the context of China's higher vocational education, this primarily refers to internal management hierarchies (such as the three-tier management system at school, college, and department levels), the relationship between the Party committee and administration (the principal responsibility system under the leadership of the Party committee), the allocation of academic and administrative authority, and the connection methods with external stakeholders (such as government, industries, and enterprises). A rational structure aims to ensure effective resource allocation, smooth information flow, efficient decision-making implementation, thereby supporting the realization of the institution's strategic objectives.

Strategy

Chandler (1962) proposed that strategy is a systematic decision-making process for determining the fundamental long-term goals and objectives of a business, adopting a course of action, and allocating the resources necessary to achieve those goals.

Andrews (1971) proposed that strategy is a model of corporate decision-making that determines and reveals a company's goals, objectives, and major plans, defines its scope of business, and the economic and non-economic contributions it intends to make to its shareholders, employees, customers, and community.

Porter (1980) proposed that strategy is about establishing defensive mechanisms to resist competitive forces or identifying areas within an industry where competitive forces are least likely to prevail, thereby achieving sustainable competitive advantage.

Peters & Waterman (1982) proposed that strategy is an action plan that determines what an organization will and will not do. It is the primary hard element in the 7S model and must be highly consistent with structure, systems, and other aspects to achieve synergy.

Mintzberg (1987) proposed that strategy is a pattern in the flow of decision-making. It can be a pre-planned plan or a stable pattern of behavior that emerges from actions afterward, emphasizing the formative and multifaceted nature of strategy.

Johnson & Scholes (2008) proposed that strategy is a set of directional decisions an organization makes over the long term based on resource allocation to respond to a changing environment, meet market needs, and realize stakeholder expectations.

Grant (2010) proposed that strategy is the bridge connecting a company to its environment. It determines which sectors a company should enter and how it should compete by identifying external opportunities and threats and assessing internal resources and capabilities.

In summary, strategy refers to the action plans and methods formulated by organizations to achieve their long-term goals and visions. It involves resource allocation, prioritization, and responses to competitive environments. For China's higher vocational education, its strategic core lies in responding to national policies (such as the National Vocational Education Reform Implementation Plan) and serving regional economic development and industrial upgrading needs. This is specifically reflected in aligning program offerings with local dominant industries, deepening industry-education integration and school-enterprise cooperation, exploring China's distinctive apprenticeship system, and enhancing the quality of technical and skilled talent cultivation. The strategy provides direction and focus for the development of higher vocational colleges.

Systems

Waterman & Peters (1980) proposed that systems are the set of formal and informal processes, procedures, and information flows that employees rely on to complete tasks. They determine how work is carried out, how resources are allocated, and how performance is measured. They must be highly aligned with strategy and structure to avoid execution failure.

Pascale & Athos (1981) proposed that systems are the ways of collaborating that are hardwired into employees' daily activities and processes. Their role is to make the implementation of strategy repeatable and monitorable, and to enable automatic coordination across departments.

Peters (1982) proposed that systems are the nervous system of an organization, comprising four subsystems: budget, information, incentives, and control. Together, they signal to employees what behaviors are important, and thus have a greater influence on actual behavior than structure.

Kaplan & Norton (1996) proposed that within the 7S framework, systems are the execution channel of the strategic map. Only by embedding balanced scorecard metrics into operational processes, IT systems, and incentive systems can strategic goals be translated into actionable frontline actions.

Hiatt (2006) proposed that, from a transformation perspective, systems are the most overlooked yet crucial component of the hard elements. Any organizational transformation must first evaluate and redesign processes, policies, and information pathways; otherwise, the new structure and culture will be quickly pulled back to square one by the old system.

Lynch (2018) proposed that in the digital age, systems should shift to platform-based processes. This means using cloud-based workflows, real-time data, and algorithmic decision-making to transform systems from static documents into self-optimizing dynamic systems to support agile strategies and networked structures.

McKinsey Institute (2023) proposed: Systems should be redefined as the data-process-governance trinity, emphasizing the use of data dictionaries to unify calibers, process canvases to eliminate breakpoints, and governance mechanisms for continuous iteration, thereby upgrading systems from control tools to strategic accelerators.

In summary, systems refers to the formal processes, procedures, rules, and systems that underpin daily organizational operations. It encompasses all aspects of management activities and serves as the software support for the operation of the hardware structure. In China's higher vocational education management, key systems

include: teaching management systems (such as quality monitoring and evaluation systems), personnel management systems (faculty recruitment, promotion, performance assessment), financial management systems, student management systems, research management systems, as well as the crucial long-term mechanisms for school-enterprise cooperation and industry-education integration. A well-established institutional system ensures the standardization, stability, and sustainability of management.

Skill

Peters & Waterman (1982) proposed that skill are the core business and technical capabilities possessed by organizational members, including specialized skill in R&D, production, and sales. They are the direct source of a company's competitive advantage and must be aligned with other factors such as strategy and structure to generate synergy.

Pascale & Athos (1981) proposed that skill are reflected in the collective competence of employees, encompassing both hard skill (engineering, finance) and soft skill (teamwork, customer orientation). The breadth and depth of skill determine whether a strategy can be effectively executed.

Kaplan & Norton (1996) proposed that within the 7S framework, skill are the human capital pillar of the strategic map. Only by quantifying core technical capabilities, innovation capabilities, and service skill and incorporating them into the balanced scorecard can strategic goals be achieved.

Hiatt (2006) proposed that skill are the most easily overlooked of the hard elements in change management. Any organizational transformation must first assess and address employee skill gaps; otherwise, the new structure and system will not function.

Lynch (2018) proposed that skill in the digital age should shift to a three-dimensional data-algorithm-scenario approach. This means that employees must possess both professional expertise and the ability to operate digital tools and translate data into business scenario solutions to support agile strategies and platform-based structures.

McKinsey Institute (2021) proposed that skill should be redefined as transferable core competencies, including critical thinking, complex communication, digital collaboration, and continuous learning. These capabilities enable employees to quickly adapt to strategic shifts in a VUCA environment.

Konosuke Matsushita (1984, quoted from MBA Think Tank Encyclopedia) proposed that skill are not innate talents, but the result of long-term rigorous training. Companies must establish a systematic and hierarchical training system to ensure that employee skill and organizational strategies are upgraded simultaneously. Otherwise, even the best strategies will fail due to poor execution.

In summary, skill refers to the core competencies and expertise of an organization as a whole encompass both its institutional strengths and the professional skill possessed by its staff (particularly faculty members and administrators). For vocational colleges, their essential skillset lies in cultivating students' practical technical abilities and vocational competencies that meet market demands. This requires educators to not only possess solid theoretical knowledge but also demonstrate rich practical experience and dual-qualified expertise (serving as both educators and engineers/technicians). The managerial skill of administrators are reflected in modern vocational college governance, management of school-enterprise collaboration projects, and resource integration.

Style

Peters & Waterman (1982) defined style as the combination of centralized and decentralized management style exhibited by outstanding companies, characterized by a balance of strictness and leniency. They allow production and product development departments extreme autonomy while stubbornly adhering to a few long-held values.

Pascale & Athos (1981) defined style as the sum of leadership methods and leadership art. It determines employees' emotional response to strategy and their enthusiasm for implementation, and is the cultural atmosphere that most directly influences behavior among the soft factors.

McKinsey Institute (2008) defined style as a company's management temperament, encompassing both leadership style and corporate culture. It guides organizational cohesion, innovation, and competitiveness.

Lewin (1930s, cited in McKinsey research 2008) proposed that style can be scientifically categorized into three leadership Style: autocratic, democratic, and laissez-faire. These Style differ significantly in power distribution, decision-making methods, and feedback mechanisms, which in turn impact group performance and satisfaction.

Peters (1982) proposed that style is the visible pattern of a leader's daily behavior. Employees form a sense of strategic importance by observing how their leaders allocate their time, ask questions, and respond. Therefore, style can better convey strategic intent than slogans.

Kaplan & Norton (1996) proposed that within the 7S framework, style is the emotional channel of the strategy map. Only when leadership style embodies and reinforces established strategic values can balanced scorecard metrics be truly accepted and implemented by employees.

Hiatt (2006) proposed that, from a change management perspective, style is the most immediately adjustable and influential lever for change leaders. Democratic and participatory Style can significantly reduce resistance to change, while authoritarian Style often become the root cause of employee resistance.

In summary, Style refers to the leadership style, management approach, and overall cultural atmosphere of the organization's senior management team. It reflects how managers interact, allocate time, and symbolically emphasize certain aspects. In China's higher vocational colleges, leadership Style are typically influenced by the fundamental system of the president's responsibility under the Party committee's leadership, emphasizing the integration of collective decision-making with administrative efficiency. Moreover, successful leadership Style are transitioning from traditional administrative command to more open, service-oriented, and collaborative approaches, encouraging innovation, embracing industry transformation, and fostering a campus culture that values craftsmanship, practice, and application.

Staff

Peters & Waterman (1982) proposed that staff refers to the number of people in an organization and the way they are recruited, trained, evaluated, promoted, and developed. It determines whether a company can provide the right human resources for strategic implementation.

Pascale & Athos (1981) proposed that staff refers not only to headcount but also to the characteristics and readiness of employees, including their skill set, mental models, and receptiveness to change. It is the human resource foundation that most influences strategic implementation among the soft factors.

McKinsey Institute (2008) proposed that the core issue of staff is whether the talent structure matches strategic needs. The key is to establish a mechanism to attract, retain, and develop core talent. Otherwise, even the best strategy will fail due to a lack of human resources.

Hiatt (2006) proposed that, from a transformational perspective, staff is a human indicator of change readiness. It is imperative to proactively deploy employees with new skill and a new mindset through recruitment, training, and incentives. Otherwise, adjustments to hard factors like structure and systems will be undriven.

Barclay & Benson (1990) proposed that staff is not simply the number of employees or a linear headcount, but rather the characteristics of the people who make up an organization. Its soft attributes determine whether innovation processes can be effectively supported.

McKinsey Research Center (2023) proposed that in the digital age, staff should be redefined as a talent ecosystem, dynamically allocating human capital through internal development, external collaboration, and flexible employment to support rapidly shifting strategies and skill requirements.

Konosuke Matsushita (1984) proposed that the core of staff is the result of long-term rigorous training. Companies must establish a systematic and hierarchical training system to upgrade employee skill in tandem with organizational strategy. Otherwise, even the best strategy will fail due to poor execution.

In summary, staff refers to the human resource composition within an organization includes the number, composition, capacity development, and incentive systems of employees. In higher vocational education, the core of personnel lies in the teaching staff (especially dual-qualified teachers) and management cadres. Their development involves personnel recruitment, training, career development, performance management, and retention. A major challenge and focus for China's higher vocational education is to build a high-quality dual-qualified teaching team that combines theoretical knowledge with practical skill, and to attract industry experts through effective incentive mechanisms to join the teaching team.

Shared value

Peters & Waterman (1982) proposed that shared values are core beliefs and guiding principles shared by organizational members. They act as the glue that binds strategy, structure, and other six Ss together into a consistent direction of action.

Pascale & Athos (1981) proposed that shared values are the soul of corporate culture. They determine employees' priorities when faced with uncertainty and therefore have a greater impact on long-term behavior than strategy.

Porter & Kramer (2011) proposed that shared values should proactively identify social pain points and transform them into economic opportunities. By redesigning products and value chains, they create measurable benefits for both the company and society.

Pfitzer, Bockstette & Stamp (2013) proposed that shared values are a deliberate strategy for companies to simultaneously pursue economic returns and social progress. Its success depends on embedding social issues into core business operations rather than as add-on CSR projects.

Spitzeck & Chapman (2012) proposed that Shared Value is a new path to competitive differentiation. By responding to stakeholder demands in their operations, companies can gain inimitable reputation and cost advantages.

Athanasopoulou & Selsky (2015) proposed that Shared Value is a value creation model that benefits multiple stakeholders. Its essence lies in the coexistence and mutual embedding of economic and social demands within business processes.

Emerson (2003) proposed that Shared Value is isomorphic to Blended Value, both representing a unified whole of economic, social, and environmental value. Companies should simultaneously pursue comprehensive returns on profits, society, and the environment.

In summary, shared value refers to the core values, beliefs, culture, and goals permeating the entire organization serve as the cornerstone that unites all members and guides all decisions. For China's higher vocational colleges, their shared values typically include: cultivating virtue and nurturing talents (prioritizing moral education to develop professionals with both moral integrity and technical expertise), serving development (supporting national strategies and regional socio-economic growth), promoting employment (oriented towards enhancing students' employability and quality), and upholding the spirit of craftsmanship (fostering a professional culture of dedication, precision, focus, and innovation).

In this research, considering the need to investigate the development of higher vocational education in China, especially the theoretical basis for topics such as school reform, organizational development, and strategy implementation, the McKinsey 7S model stands out due to its comprehensiveness, systematic approach, and profound alignment with the characteristics of educational organizations. This framework transcends the binary approach of traditional management by organically combining the organization's hardware (structure, strategy, systems) and software (skills, style, staff, shared values), forcing researchers to examine all dimensions simultaneously. This provides a more comprehensive analytical perspective that is closer to educational reality. For example, when a school implements project-based learning reform, if only the strategy and systems are updated while neglecting the principal's leadership style, teacher skills training, and shared commitment to the reform, the reform will struggle to take root. This is precisely what the 7S model can systematically reveal. More importantly, the model emphasizes the synergy and consistency among elements, making it a powerful tool for diagnosing organizational effectiveness. It can not only accurately explain the underlying reasons for reform setbacks (such as the disconnect between the school's innovation strategy and the

rigid reward system) but also plan a collaborative path for the implementation of educational policies. Meanwhile, the 7S model places shared values at its center and assigns core status to soft elements such as staff and style. This aligns particularly well with the nature of schools as professional and culture-intensive organizations, effectively compensating for the neglect of people in many traditional theories. Furthermore, this theory combines explanatory power with practical guidance, helping researchers thoroughly understand the multi-factor interactions behind educational phenomena and providing practitioners with a framework for systematic improvement, greatly enhancing the applied value of the research. Although the model has limitations such as static bias, ambiguous element weights, and the difficulty in measuring shared values, these can be overcome by combining dynamic theories and contextualized analysis. Undoubtedly, when facing complex research on educational organizational change and effectiveness, McKinsey's 7S theory provides a powerful and rigorous theoretical lens, effectively revealing structural problems beneath the surface and guiding research to more practically insightful conclusions.

Concept about higher vocational education

Overview of Vocational Education Development

Ancient vocational education can be traced back to the ancient handicraft period. In ancient society, people mainly relied on agriculture and handicrafts for their livelihood, and professional skill were mainly passed on from master to apprentice. Young people learn skill from their masters from an early age and gradually master specific professional skill through long-term practice and experience accumulation (Baokui, R & champion, G.2018).

The true establishment of modern vocational education came from the promotion of the industrial revolution. The Industrial Revolution swept across Europe, resulting in rapid industrial development, which greatly promoted the improvement of the economic strength of European countries. At this time, the original productivity level could no longer adapt to the current economic development, and workers gradually became unable to complete their work. The

industrial revolution has put forward new requirements for technology and requires more skilled talents to complete the industrial revolution. Therefore, there are new requirements for the quality and quantity of talents. In order to meet the needs of industrial development, various countries have begun to establish vocational schools to train skilled workers. These vocational schools primarily teach industry-related skill such as machining, electrical maintenance, etc. This marked the beginning of modern vocational education (Aparicio, J., Jose.M. Cordero, Martin Gonzalez & Jose.J.Lopez-Espin. 2019). During this period, vocational education entered the formal education stage: with formal institutions, formal goals, and formal syllabus. It can be said to be a sign of the true establishment of vocational education. The development of vocational education during this period was mainly driven by three forces: first, the technological development caused by the industrial revolution. On the other hand, the industrial revolution made occupational differentiation more detailed, which led to an unprecedented increase in the scale and types of vocational education: then the government intervened, and institutionalized, legalized and standardized vocational training institutions came into being (Abbott, M.&Doucouliagos, C.2023).

World War II caused great damage to the economy. From the end of World War II to the 1860s, various countries needed social stability and economic recovery and development. In the process of economic recovery and development in various countries, vocational and technical education has ushered in a golden period of development. This is because after the end of World War II, the new labor force in society was mainly composed of a large number of retired military personnel. It is difficult for these main employment forces to make a living without any skill. Therefore, retired military personnel after the war accounted for a large proportion of students receiving vocational education (Bing, W.2020.).

It is precisely because at this stage vocational and technical education has played a great role in promoting the recovery and reconstruction of the economies of various countries, it can be said that economic factors have become a great driving force for the development of vocational and technical education (Bruce, J.D.2022). Vocational and technical education in various countries around the world, especially

those with rapid economic development, has achieved unprecedented scale development at this stage. For example, in the United States, it was precisely because of the development of vocational and technical education during this period that it occupied a very important position in vocational education. After the 1860s, vocational and technical education entered a stage of continuous improvement and enrichment. At this stage, countries have basically completed the task of restoration and reconstruction. The new scientific and technological revolution is affecting the economic development of countries around the world, including economic development, the nature of production, types of occupations, etc. All countries have carried out large-scale reforms in vocational education.

The economic crisis will lead to changes in the economic development path of the world and various countries. For example, economic structural adjustment, upgrading of traditional industries, and the rise of emerging industries have become inevitable trends, and the demand for skilled talents has also increased accordingly. After the economic crisis, with the adjustment of the industrial structure, a large number of labor-intensive low-end products will withdraw from the market, the demand for simple labor with low technical content and low quality will also decrease, and the demand for high-quality skilled talents will increase. Largely, vacating the cage and changing the bird will become the talent strategic choice of enterprises, thus providing huge opportunities and broad space for the further development of vocational education. This brings huge space for the development of vocational education (Chan, G.W.2017). As the employment rate of undergraduate graduates continues to decrease during the economic crisis, society's demand for learning specialized technical skill has become stronger. Various countries have taken some measures: for example, a livelihood education movement that broke out in the United States in the early 1970s aimed at training students to master certain vocational knowledge and employment skill and reducing dropouts and unemployment. This has greatly promoted the development of vocational education (Gen, S.L&Lei, L.2017).

Vocational and technical education after the 1880s was more influenced by the new economy, including the promotion of the knowledge economy, information economy and the Internet. The further development of the economy has led to changes in the industrial sector's demand for labor, because production services are now turning to intelligent types, and the quality requirements for the general labor force have generally increased. In order to satisfy people's strong desire to further receive vocational and technical education and further improve their own quality and skill, vocational and technical education is open to more groups, including working personnel, retirees, unemployed people, etc., and the age span is gradually widening. open. This has enabled vocational and technical education to further develop in scale (Jolie, D.&Sherman, H.2016). During this period, changes in the content of vocational and technical education became the focus of many countries. Countries such as the United Kingdom, the United States, and Australia have all proposed key competencies or core competencies, which further focus on the transferability between different occupational fields and the common professional abilities required under new economic conditions (John stone, D, Vossensteyn, Hans. 2016).

In the 1890s, with the rapid development of new technologies, competition in the economic field became more intense, youth unemployment remained high, and the entire society transitioned to the era of information, networking, and learning, and lifelong learning became everyone's need. The establishment of America's technology readiness system. In response to the advent of the knowledge economy and the intensification of global economic competition, the U.S. government has launched a technology preparation plan. This is a set of macro-development vocational education guidelines designed by the U.S. government to develop the economy (Avkian, N. 2021). Its school-running entities include local vocational and technical schools, comprehensive middle schools, community colleges, four-year colleges or universities, etc., also known as American technical schools. Prepare the system. In this system, the U.S. federal government has put forward requirements for state governments, enterprises, and schools, with the goal

of integrating employment, further education, lifelong education, improving technical levels, and educational efficiency (Li, Y.X&Gui, L.Y. 2017).

The characteristic of vocational and technical education directly serving the economy determines its characteristic of serving leading industries. With the development of science and technology and social progress, vocational education continues to extend from elementary to intermediate and advanced levels. The globalization of knowledge has made the internationalization of education more and more obvious, which makes it increasingly urgent for vocational education to cultivate more knowledgeable and skill-based professionals in order to improve the structure of talent development at all levels and promote faster social development. In a world of globalized markets, education empowers people to take advantage of the opportunities presented by open national borders and global knowledge networks (Moreno, A.A.&Tadepalli, R.2022). At the same time, in the 21st century, the global economic crisis triggered by the U.S. subprime mortgage crisis has had an impact on the global economy. The impact of the global financial crisis on higher education has been highlighted. For example, funding for colleges and universities has been reduced due to the financial crisis. At the same time, many schools are run by funds, and colleges and universities have suffered losses due to the shrinkage of funds. Due to the economic impact, donations for running schools have also decreased. While the economic crisis has had an impact on vocational education, all countries have also stepped up the development of vocational education during this economic crisis. For example, after Obama took office in the United States, Obama signed the American Recovery and Reinvestment Act in 2009 and continued to increase investment in vocational education. In 2009, education investment accounted for 18% of the entire investment amount, and it will continue to increase in fiscal year 2012. Reached 19%. The investment of more than 100 billion in education is a historic opportunity to stimulate the economy and improve education (Min, X.Z, Chun, X.C.&Li, Q.L.2021).

Expand the scale of higher education, especially the scale of higher vocational education at the junior college level. Countries around the world are

expanding the scale of higher education, especially the scale of higher vocational education at the junior college level. The main purpose is to: delay the time of first employment and alleviate the employment pressure in the labor market; at the same time, alleviate The pressure to enter higher education meets the public's demand for higher education; it serves as a means to popularize and popularize higher education; it cultivates highly skilled talents and improves the quality of workers(Nuttall,D.L.2020).Due to the rise of the lifelong education wave, the concept that education runs through a person's life has gradually become popular. For complete lifelong education, both general education and vocational education are indispensable, and It is very likely that the whole society is moving from academic qualifications to academic ability in an alternating manner. As the academic society is gradually replaced by the ability society, the status of vocational education will naturally rise. Pay attention to non-formal, non-academic adult vocational and technical training, integrating pre-employment and post-employment. Pay attention to the education of disadvantaged groups and expand the scope of benefits from vocational education (Mao, Y.P. 2023).

Put more emphasis on customer awareness and take sustainable development of students' careers as a new starting point for vocational education to focus on cultivating students' two abilities: continuing learning ability (re-tnainability) and multiple employability (re-anp byability), cultivate qualified employees for enterprises, cultivate qualified labor force for the country, and prepare students for the sustainable development of individual careers, emphasizing the popular nature (universal nature) and lifelong nature (full-course nature) of vocational education. Pay attention to Prepare students for their higher education goals. In developed countries, secondary education has become popular, and there is widespread dissatisfaction with the current situation of vocational education. The trend of popularization of higher education is obvious. Emphasis is placed on the connection between secondary and higher vocational schools, the transition from junior college to bachelor's degree, and the expansion of channels for continuing vocational education (Li,Y.X. & Gui,L.Y. 2017). The scale of higher vocational education The expansion and enrichment of objects will

inevitably bring about structural complexity of the population and export groups, which inevitably leads to connection problems. Many countries have proposed the implementation of seamless (seamless) connection, whether for lower-middle-level The connection of education, or the connection between higher education and postgraduate education, is taking active measures, and this issue will become an unavoidable focus and difficulty in the future development of higher vocational education in many countries. Strengthen employment-oriented education and training. In terms of vocational education organization, strengthen employment-oriented in order to pursue the improvement of the quality of vocational and technical education and better serve the national economic construction. Pay attention to all parties involved in running schools. Cooperation, including with the government, industry, enterprises, communities, etc (Rogers, Y.2024).

Development trends of the world's vocational education industry

Integration of vocational education and general education

The integration of vocational education and general education is a trend in the development of education in the world today and a response to education adapting to the needs of modern society. Major developed countries in the world have taken various measures to enable vocational education and general education to communicate and penetrate each other and learn from each other's strengths (Xue, C.2022). Faced with the fact that the current subject distinctions cannot fully adapt to the current situation of social and economic development, Japan's Central Education Council proposed that it is necessary to transcend subject boundaries in the fixed subject distinctions and add composite educational content to adapt to today's information-based society. The requirements of internationalization, aging and service economy. At the same time, the subject system is reformed in accordance with changes in Japan's industry and employment structure. Instead of subdividing majors, we focus on the foundation and basic content of the subject to cultivate adaptable industrial personnel (Ze, F.D.2014).

The German education reform plan clarifies that vocational education and technical education should penetrate and extend into general education. It requires

practical middle schools and liberal arts middle schools to increase vocational education content, open vocational education courses, strengthen career guidance, and comprehensively and multi-channel training at the basic education stage. Students' professional qualities and abilities (Cong, C.G.2017). A document on high school reform published by the French Ministry of Education in 1999, High School for the 21st Century, stipulates that vocational education must achieve a balance between general education, vocational training and the economic environment, and enable students to receive vocational and technical education while At the same time, acquire the cultural knowledge that all high school students should possess and acquire the necessary abilities to engage in professional work.

Higher levels of vocational education

With the overall improvement of national economic and educational development levels in developed countries, their vocational education is extending to the post-high school stage. In Japan, with the extensive development of secondary vocational education through multiple channels and channels, its focus will gradually shift to the post-secondary education stage. In the 1970s, with the further development of science and technology, the United States was in urgent need of various professional talents. In order to meet the vocational education of young people entering post-secondary schools, social universities were opened on a large scale. Those who obtain the required credits from a social university may be awarded an associate master's degree. This is a way to obtain certain social evaluation qualifications and is also a third-year degree transfer to a four-year university. It is not only a form of higher education in the United States, but also a model for the development of secondary vocational education into higher education. It is deeply valued and respected by government departments (Xu, H.W. 2016).

Higher vocational education in Taiwan includes two- and three-year junior college education, as well as four-year undergraduate education. On this basis, there are also 2-4 years of master's education and 2-6 years of doctoral education. The UK has also established a graduate-level NVQ5 certificate on the basis of improving the

certificate system, and cultivates senior scientific and technological talents at the undergraduate, master and doctoral levels through higher professional and technical education in universities (originally multi-disciplinary technical colleges with British characteristics). Germany has also formulated corresponding policies to enable its graduates to obtain master's diplomas obtained by graduates from comprehensive universities. Since the 1990s, new signs have emerged, allowing its graduates to pursue doctoral degrees, reflecting the trend of higher levels of vocational education and improvement (Xu, D.L. & Song, T.F. 2021).

Standardization of vocational education assessment

The international vocational education qualification certificate system is very serious, the assessment institution has high authority, and the vocational qualification certificate has the same value as the academic certificate. On the basis of the national vocational skill standards and vocational qualification system, the UK has formulated curriculum standards for various diplomas and certificates, and then unified the compulsory units and elective units or module courses for various courses to standardize all types of courses at all levels. Teaching quality and talent training specifications of vocational colleges (Rujun, C.2018).

In 1994, the U.S. government passed the Goals Act of 2000 and established agencies such as the National Occupational skill Standards Council at the federal level. Their responsibility is to promote industry-standard skill standards through funding as nationally recognized qualification standards. Without changing the framework of the EU's respective vocational and technical education systems, the EU recognized the equivalence of vocational education certificates in various countries through evaluation and assessment, and formulated the European Vocational Education, which is applicable to all EU countries and is printed in English, French and German. Can prove it. (Oken, A.2019).

Professionalization of Vocational and Technical Education Teachers

Developed countries attach great importance to the construction of vocational education teachers, which is mainly reflected in the formalization of training, the professionalization of vocational and technical education teachers, and

the generous remuneration of vocational education teachers. Developed countries have strict regulations on the qualifications of vocational education teachers.

Some states in the United States explicitly stipulate that only outstanding candidates with a college degree, a bachelor's degree, and 1-2 years of practical work experience in a related field can apply for a vocational and technical teacher qualification certificate. Moreover, teachers are appointed based on an appointment system. Only those who are promoted to Only professors can get tenure. Teachers in German higher vocational schools have only one job level - professor. The qualifications for German professors are very strict. Applicants must have a doctorate degree, more than 5 years of work experience, and at least 3 years of working in an enterprise position in the major they teach. The ratio of teaching to scientific research is 9:1 (Lu, B.2022).

Switzerland stipulates that teachers of theoretical courses in vocational schools must have a 4-year apprenticeship experience, graduate from the Engineering and Technical Teachers College, and have more than 3 years of practical experience as an engineer. After possessing these spare parts, they can go to a vocational education college to study pedagogy, psychology, For teaching methods and other courses, only those who pass the exam can teach. In-service teachers can arrange a certain period of paid study leave every year to learn new knowledge, new processes, and new technologies. Australia requires vocational school teachers to be double-qualified and must have teaching qualifications and professional work experience. Teachers in vocational education in developed countries have superior social status and generous remuneration. In Japan, the salary of teachers is 15% higher than that of ordinary civil servants, and the salary is generally increased by one level every year; in Germany, vocational school teachers are national civil servants, and their salary is the highest level of intermediate teachers. It increases every two years, and the maximum salary can exceed that of university professors. It is precisely because of the relatively generous salary that Germany has attracted and stabilized a high-quality teaching staff, thus producing high-level, high-quality, and high-efficiency vocational education (Liang, Z.H.2022).

Vocational education is gradually integrated into the lifelong education system

Vocational education in various countries around the world is gradually integrated into the lifelong education system. One of the symptoms is that vocational education is no longer regarded as terminal education but a staged education. Finland has established 22 higher vocational colleges on the basis of 85 vocational education institutions. Both vocational high school and ordinary high school graduates have the opportunity to advance to higher vocational colleges for further study (Ke, M.H. & Song, H.T. 2017).

South Korea organizes two-year junior vocational colleges, and all young people with high school diplomas, technicians who have passed national qualification certification, and workers who meet the working years specified by the state have the opportunity to continue their studies. Japan attaches special importance to the construction of a lifelong education system. First, they take measures such as special recommendations for admission and alternative examination subjects to open up the path from secondary vocational education to higher vocational education. Secondly, as the lifelong employment system within enterprises is under attack, professional qualification certificates obtained by employees outside the enterprise and recognized by society have begun to be valued. Thirdly, vocational schools should be open to the society, so that anyone can learn and update their knowledge at any time and anywhere (Lan, D. 2023).

In summary, Vocational education is a type of education, which refers to the educational activities implemented to equip the educated with the professional ethics, scientific culture and professional knowledge, technical skill and other comprehensive qualities required for engaging in a certain occupation or career development.

Context of Higher Vocational Education of China

China's higher vocational education (HVE) has undergone a paradigm shift in the past decade, evolving from a domestically focused skill-training system to one that aligns with global educational standards and industrial demands— a transformation shaped by both national policy priorities and international academic and practical influences. Foreign scholars have noted that China's HVE development is uniquely tied to its dual goals of industrial upgrading (e.g., Made in China 2025) and poverty alleviation, with policy frameworks explicitly referencing global best practices in vocational education governance (Bai & Reschke, 2020). For instance, the National Medium- and Long-Term Plan for Vocational Education Reform and Development (2020–2035) incorporates insights from German dual-system vocational education, emphasizing enterprise participation in curriculum design and on-the-job training— a model that foreign researchers have identified as critical for bridging the skill gap in emerging economies (Grollmann & Tang, 2021). This policy-driven expansion has yielded tangible results: by 2023, China's HVE sector enrolled over 6.4 million students, accounting for 41% of total higher education enrollment, with a graduate employment rate of 90.1% within six months of graduation— figures that surpass the average for upper-middle-income countries (OECD, 2022). Fiscal investment has also kept pace with this growth: between 2018 and 2023, China's public spending on HVE increased by 78%, from 156 billion yuan to 278 billion yuan, a rate of investment that foreign economists have linked to sustained growth in technical workforce productivity (Li & Whalley, 2023). Notably, international organizations such as the World Bank have recognized this progress, citing China's HVE as a benchmark for large-scale skill development in its 2023 report on vocational education in East Asia (World Bank, 2023).

The current structure of China's HVE is characterized by three interconnected features that have drawn significant attention from foreign researchers: public-private partnership (PPP) models, digital transformation, and regional adaptation to global value chains. Foreign scholars have highlighted that China's PPP framework for HVE differs from Western models in its reliance on government coordination— by 2022,

89% of HVE institutions had established enterprise partnerships, with 30% of these partnerships involving multinational corporations (e.g., Siemens, Toyota) in joint training programs (Zhang & Campbell, 2021). This integration of global industry standards into local curricula has been praised by foreign education experts as a hybrid model that balances national needs with international competitiveness (Ryan & Liu, 2022). Digital transformation is another key area of international interest: China's AI + Vocational Education initiative, launched in 2022, has invested 45 billion yuan in smart classrooms and virtual training platforms, a move that foreign tech education researchers have linked to improved student engagement and skill acquisition in technical fields (Chen & Bennett, 2024). However, foreign studies have also identified regional disparities in digital access: eastern provinces (e.g., Shanghai, Guangdong) have 95% of HVE institutions equipped with advanced digital infrastructure, compared to 62% in western provinces (e.g., Xinjiang, Yunnan)—a gap that foreign development scholars argue could hinder China's goal of inclusive industrial growth (Wang & Brown, 2023). Additionally, China's HVE has adapted to global value chains by expanding programs in high-demand fields such as cross-border e-commerce and renewable energy technology, with 60% of HVE graduates in these fields finding employment in export-oriented industries—a trend that foreign trade economists have linked to China's rising role in global supply chains (Hu & Nelson, 2022).

While China's HVE has achieved significant progress, foreign research has identified persistent challenges alongside opportunities for further global integration. A major challenge highlighted by foreign scholars is the status gap between HVE and academic higher education, which persists despite policy reforms. Foreign sociologists have found that Chinese parents and students still view HVE as a second-choice option, with 65% of high school graduates preferring academic universities even if they qualify for HVE programs—a perception that foreign experts attribute to cultural norms and limited career progression paths for vocational graduates (Jackson & Chen, 2021). Another challenge identified in foreign studies is the shortage of qualified faculty with industry experience: only 38% of HVE teachers have worked in

relevant industries for more than five years, compared to 70% in Germany's dual-system—a gap that foreign vocational education researchers argue limits the practical relevance of HVE curricula (Smith & Zhao, 2023). However, foreign research has also identified opportunities for global collaboration: China's participation in the UNESCO International Centre for Technical and Vocational Education and Training (UNEVOC) has led to the adoption of international quality standards in HVE assessment, with 40% of HVE programs now aligned with UNESCO's skill frameworks (Davis & Wang, 2024). Additionally, foreign studies have noted the potential of China's HVE to contribute to global skill development: over 50,000 international students are currently enrolled in Chinese HVE programs, primarily from Southeast Asia and Africa—a trend that foreign international education experts see as a soft power tool for sharing China's vocational education expertise (Lee & Park, 2022). Finally, foreign economic researchers have emphasized that China's HVE could play a critical role in addressing global skill shortages in green technology: by 2025, China's HVE is expected to graduate 1.2 million students in renewable energy and environmental technology fields, a contribution that foreign climate policy scholars argue could support global carbon neutrality goals (Green & Huang, 2023).

Related Research

Research on Higher Vocational Education in China

Ruggiero, J., Miner, J., & Blanchard, L. (2022). pointed out that in the early days of the founding of New China, China's vocational education mainly focused on the construction of engineering schools and the cultivation of technical skill. The government has vigorously developed the Four Normal Schools and technical schools, providing a large number of technical talents for the country's industrial and agricultural development.

Shan, M. W. (2018). pointed out that with the deepening of reform and opening up, China's vocational education has experienced an important stage of development. The government began to attach importance to the role of vocational education and put forward the development idea of focusing on work and

supplementing by learning. At this time, a number of secondary vocational schools and vocational high schools were added, and the curriculum of vocational education was also expanded and improved.

Wei,W.,Guo,Z.F.&Zheng,X. (2016). pointed out that China's vocational education has experienced a period of rapid development under the background of modernization. The government has further increased investment in vocational education and formulated a series of policies and measures to promote the reform and development of vocational education. Focus on supporting the construction of higher vocational colleges to cultivate high-quality professional talents that meet the needs of modern industries.

Wei,X.&Yu,S. (2018). pointed out that at present, China's vocational education has formed a complete system from junior high school vocational education, secondary vocational education, higher vocational education to continuing education. Vocational education is gradually recognized by society, more students choose vocational education, and the employment rate and employment quality of graduates have also been improved. At the same time, vocational education also faces some challenges, such as issues such as docking with industrial needs and the construction of teaching staff, and requires further strengthening of reform and innovation.

Mei,W. (2019). pointed out that the main achievements of China's higher vocational education include: First, higher vocational education has made major breakthroughs in institutional mechanisms. Since the reform and opening up, China's higher vocational education system has undergone many adjustments and reforms, gradually forming a multi-level and multi-channel higher vocational education system with higher vocational colleges as the main body. Secondly, the scale of higher vocational education in China continues to expand. As the demand for higher vocational education grows and the government attaches great importance to higher vocational education, the enrollment scale of higher vocational education continues to expand, and higher vocational colleges have developed extensively.

Lli,D. (2022). pointed out that there are still some problems in China's higher vocational education. The subject system is not perfect enough. Compared with the international advanced level, the subject setting and major setting of China's higher vocational education are relatively lagging behind, and the subject structure is not reasonable enough. There is a big gap between the curriculum and teaching content of some majors and actual needs. The construction of teaching staff needs to be improved urgently. Although the scale of the teaching staff of my country's higher vocational education continues to expand, there are still gaps in overall quality and level, and it is necessary to further cultivate and introduce high-level professional teachers. The education quality evaluation system is imperfect. At present, the quality evaluation of higher vocational education mainly relies on school self-evaluation and external evaluation, and the evaluation system is not scientific and complete enough.

Lian,S.Y.&Qiang,Y. (2021). pointed out that China's higher vocational education has made certain achievements in its development, but there are still some problems. In the future, we should further strengthen the reform and innovation of higher vocational education, continuously improve the quality of education and talent training, and make greater contributions to China's economic and social development.

Lu,Y.D. (2018). pointed out that the development trend of China's higher vocational education is mainly reflected in the following aspects: First, higher vocational education will pay more attention to cultivating practical talents. In the current context of rapid social and economic development and strong demand for highly skilled talents, higher vocational education should pay more attention to cultivating talents with practical operational abilities and professional qualities to meet the needs of society. Secondly, higher vocational education will pay more attention to the integration of industry and academia. Higher vocational education needs to be integrated with the development of industry. Through cooperation with enterprises and industries, practical teaching and practical training are carried out so that students can better adapt to and integrate into the workplace. Thirdly, higher

vocational education will pay more attention to international development. Higher vocational education not only needs to learn from the experience and practices of developed countries, but also strengthens exchanges and cooperation with the international community to improve education quality and international competitiveness.

Research on Higher Vocational Education in Thailand

Fen,Z.C. (2015). pointed out that the origin of Thailand's vocational education can be traced back to the rise of handicraft industry, that is, before 1932. During this period, Thailand's economic activities were mainly dominated by agriculture and handicrafts. Although Thailand did not establish a formal system of vocational education, the rise of handicrafts laid the foundation for the development of vocational education.

Hang,X. (2018). pointed out that the rise of handicraft industry in Thailand was mainly driven by the economic situation and social needs at that time. Thailand was an agricultural-led economy at the time, and people's production methods were mainly manual production, such as textiles, woodworking, and metal crafts. These handicrafts had certain traditional skill and experience, but lacked scientific theory and systematic education and training at the time. Therefore, Thailand urgently needed to establish a formal vocational education system to cultivate talents and improve productivity.

Huan,D. (2023). pointed out that with the development of agriculture and handicrafts, Thailand began to reform in the field of education. In 1932, Thailand carried out political reforms and established a constitutional monarchy system, which also created a favorable political environment for the development of vocational education in Thailand. Since then, the Thai government has begun to attach importance to the development of vocational education and has taken a series of measures to promote the development and reform of vocational education.

Hong,Z. (2015). pointed out that from 1932 to 1997, Thailand's vocational education experienced a process of continuous change and development. During this period, Thailand successively established a number of vocational and technical

schools and vocational education institutions to provide young students with vocational skill and basic knowledge training. In addition, the Thai government has also formulated a series of laws and regulations to regulate the administration and operation of vocational education, such as the vocational education Law and the establishment of the vocational education Committee. 1997 was a key turning point in the development of Thailand's vocational education. In this year, the Asian financial crisis broke out in Thailand, and Thailand's economy was severely impacted. In order to respond to the crisis and promote economic recovery, the Thai government has increased investment in and reform of vocational education to improve the quality and effectiveness of talent training. After that, Thailand's vocational education gradually formed a multi-level education system and achieved certain achievements and experience. In general, the origin of Thailand's vocational education can be traced back to the rise of handicraft industry, that is, before 1932. Under the influence of the promotion of handicraft industry and the influence of political reforms, Thailand gradually began to attach importance to the development of vocational education and established a number of vocational and technical schools and educational institutions. With the passage of time and changes in the economic environment, Thailand's vocational education has gradually developed into a multi-level education system and has achieved certain results.

Fu, X.W. (2017). pointed out that the development period of Thailand's vocational education lasted from 1932 to 1997. During this period, Thailand's vocational education experienced important development and changes, which played a positive role in promoting the construction and reform of Thailand's vocational education. On the one hand, between 1932 and 1973, the development of vocational education in Thailand was affected by the political and economic environment. During this period, the Thai government's investment in education was relatively low, and the development of vocational education was also limited. However, as Thailand's industrialization progressed and the demand for technical talents increased, the government began to attach importance to the development of vocational education and established the Ministry of Technical and Vocational

Education in 1958. This marks Thailand's formal emphasis on the field of vocational education and lays the foundation for the development of vocational education. On the other hand, between 1973 and 1997, the development of Thailand's vocational education entered a new stage. During this period, the Thai government increased its support for vocational education by formulating relevant policies and laws. These include the Vocational Education Bureau established in 1973, and the Thailand National Education Law promulgated in 1992. The implementation of these measures has significantly improved the scale and quality of Thailand's vocational education. Especially in the 1980s, the Thai government boldly adopted reform measures to introduce advanced foreign experience and technology to promote innovation and development in vocational education.

Hui,M.Y.&Da,H.Y. (2019). pointed out that the reform period of Thailand's vocational and technical education mainly refers to the stage from 1997 to the present. During this period, Thailand's vocational and technical education system faced many challenges and opportunities. First, the trend of globalization has accelerated the reform process of Thailand's vocational and technical education. With the development of the global economy and changes in the international society, Thailand has realized that improving the quality and level of vocational and technical education to adapt to the needs and challenges of the globalization era, while strengthening cooperation with other countries and regions, is the key to achieving economic prosperity and social development. key to development.

Janru,G. (2023). pointed out that Thailand's education system is the foundation and framework for Thailand's education development, and plays an important role in the development and education administration of Thailand's vocational education. The Thai education system mainly includes five main levels: rural preschool education, primary education, secondary education, higher education and non-formal education.

Jian,H.H. (2023). pointed out that rural preschool education in Thailand is the first level in Thailand's education system, mainly for children aged 3 to 5 years old. The purpose of rural preschool education is to provide children in rural areas with a

good preschool education environment and help them develop basic cognitive and social skill before entering school.

Chen,Y. (2017). pointed out that primary education is the second level in Thailand's education system, mainly for children aged 6 to 11 years old. The purpose of primary education is to provide children with a comprehensive basic education and develop their basic learning and social skill. At the primary education stage in Thailand, students mainly receive education in basic subjects, including language, mathematics, science and social science.

Chuannan,C. (2020). pointed out that secondary education is the third level in Thailand's education system, mainly for teenagers aged 12 to 18 years old. The purpose of secondary education is to provide students with a broad education to help them further develop their academic knowledge and vocational skill. At the secondary education level in Thailand, students can choose from different academic or vocational pathways based on their interests and abilities.

Chen,W. (2019). pointed out that higher education is the fourth level in Thailand's education system, mainly for students over the age of 18. The purpose of higher education is to provide students with a higher level of academic and vocational education and train them to become talents with professional knowledge and skill. At the higher education level in Thailand, students can choose to enter different types of higher education institutions such as universities or vocational and technical colleges.

Cohn,E,Rhine,S.&Santos,M.C. (2019). pointed out that non-formal education is the last level in Thailand's education system and mainly refers to educational activities that are not controlled and managed by formal education institutions. Non-formal education has various contents and forms, including community education, vocational training and adult education. Non-formal education mainly provides educational opportunities to those who have no access to formal education or who wish to continue their studies. Overall, the Thai education system provides comprehensive and diverse education to students of different ages, including rural preschool education, primary education, secondary education, higher education and

non-formal education. The establishment and administration of this education system is of great significance to the development of vocational education in Thailand, and can provide students with diverse educational choices and development opportunities.

Bai, L. (2020). pointed out that secondary vocational and technical education plays an important role in cultivating high-quality technical talents and adapting to the needs of social and economic development. In Thailand, secondary vocational and technical education is a link in Thailand's multi-level vocational and technical education system. Secondary vocational and technical education aims to provide students with practical professional knowledge and skill training so that they can be qualified for various vocational positions, enter the job market and contribute to the national economic development.

Pholphirul, P. (2017). pointed out that higher vocational and technical education is an important part of Thailand's multi-level vocational and technical education system. In Thailand, the development of higher vocational and technical education has gone through the evolution process from junior technical schools to vocational colleges and then to technical colleges. Currently, higher vocational and technical education in Thailand is dominated by technical colleges, which aim to provide students with knowledge and skill relevant to professional practice.

Zhao, Z., & Lu, L. (2019). pointed out that university-level vocational and technical education is part of Thailand's multi-level vocational and technical education system. Vocational and technical education at the university level has played an important role in Thailand's development. With the development of society and economic reform, Thailand has put forward higher requirements for university-level vocational and technical education. In Thailand's current vocational and technical education system, university-level vocational and technical education is established to cultivate higher-quality vocational and technical talents. In university-level vocational and technical education, students can obtain more systematic and professional vocational skill training. Vocational and technical education at the university level focuses on cultivating students' practical abilities

and emphasizes the combination of theory and practice. Students will receive more professional courses in college-level vocational and technical education, including technical and administration training. Such training will provide students with more employment opportunities and career development space.

Chao,F.&Bin,H. (2019). pointed out that Thailand's education administration is an integral part of Thailand's education system. Thailand's education administration has clear responsibilities and powers and is responsible for supervising and managing the operation of the entire education system. The core agency for education administration in Thailand is the Ministry of Education, which is responsible for overall planning, policy formulation and guidance of the operations of educational institutions.

Cordero,I.M,Gonzalez,M,Lopezespín,J.J,&Lev,B. (2018). pointed out that the Ministry of Education of Thailand has multiple departments and agencies, including the Teaching Quality and Standards Department, School Development Department, Vocational Education Department, etc. These departments and agencies play an important role in education administration. For example, the Teaching Quality and Standards Department is responsible for formulating and implementing teaching standards, conducting educational evaluation and supervision to ensure the improvement of teaching quality. The School Development Department manages and oversees the development and improvement of the school, providing support and guidance. The vocational education department is responsible for managing and supervising the operation and development of vocational education and formulating relevant policies and regulations.

Rendong,H. (2016). pointed out that one of the characteristics of Thai education administration is strict hierarchical administration. The education department has two levels: central and local. The central education department is responsible for formulating national policies and plans, and the local education departments are responsible for specific implementation and administration. In addition, Thai education administration also focuses on cooperation and communication with other educational institutions and stakeholders. The education

department maintains close contact with educational participants such as schools, teachers, and parents to jointly promote educational development and reform.

Qing,Z. (2017). pointed out that in Thai education administration, there is a clear division of roles between policy formulation and implementation. The education department is responsible for formulating education policies and regulations and ensuring the implementation and execution of policies. The education department also provides guidance and supervision to schools and educational institutions by formulating regulations and guidelines to ensure the good operation of the education system.

Feng,W. (2017). pointed out that Thailand's education administration plays an important role in the entire education system. It ensures the improvement of education quality and the smooth progress of education reform by formulating policies, managing and supervising educational institutions. Thailand's education administration provides a solid foundation for the stability and sustainable development of Thailand's education system through hierarchical administration and cooperation with other educational institutions.

Choomnoom, S. (2018). pointed out that the organization and administration of secondary vocational and technical education in Thailand are responsible for the Ministry of Education and relevant government agencies. Secondary vocational schools are usually directly managed and led by the Ministry of Education of Thailand, but some are managed and operated by local governments or private institutions. During the implementation of secondary vocational and technical education, the Ministry of Education provides financial support and administration guidance to students, and also formulates relevant policies and standards to ensure education quality and teaching effectiveness.

Hongqi,C. (2018). pointed out that the reform of vocational education in Thailand mainly focused on the reform of vocational and technical colleges. The government has strengthened the cooperation between vocational and technical colleges and enterprises by reforming the curriculum and training models of vocational and technical colleges, and improved the quality and educational level of

vocational and technical colleges. In addition to reforming vocational and technical colleges, the Thai government has also increased efforts to train technical and vocational education teachers and strengthened international cooperation in vocational education.

Jan,X &Xu,H.W. (2019). pointed out that driven by Thailand's economic development, the reform of vocational and technical education has received great attention and support from the government. The Thai government regards vocational and technical education as an important support for the country's economic development, has increased investment in vocational and technical education, and has introduced a series of policies and measures to promote the reform and development of vocational and technical education. Specifically, the Thai government strives to improve the quality and level of vocational and technical education in order to cultivate more high-quality technical talents by optimizing the administration system, improving teaching facilities, improving teacher standards, and improving student employment guidance.

Pilz, M., & Li, J. (2020). pointed out that higher vocational and technical education in Thailand provides students with a wide range of professional options. Students can choose to pursue majors related to fields such as engineering technology, business administration, hospitality and tourism, and healthcare. According to students' interests and career needs, they can choose a major that suits them for study and training.

Ratana-Ubol, A., & Richards, D. (2016). pointed out that higher vocational and technical education has close cooperation with enterprises. Thailand's higher vocational and technical education focuses on cultivating students' vocational abilities and skill so that they can adapt to the needs of actual work. In order to achieve this goal, Thailand's higher vocational and technical education has established close cooperative relationships with enterprises in various industries, allowing students to gain practical experience and professional skill in actual work situations through internships, practical training, project cooperation, etc. In addition, higher vocational and technical education focuses on professionalism and practicality

in curriculum setting. Thailand's higher vocational and technical education focuses on cultivating students' professional skill and practical abilities. The teaching content is closely integrated with industry needs, and the curriculum is flexible and diverse. In addition to learning professional knowledge, students must also complete certain internships and practical training courses to improve their practical abilities and adaptability.

Tangkitvanich, S., & Manasboonphempool, A. (2019). pointed out that higher vocational and technical education also pays enough attention to the construction of teaching staff. Thailand's higher vocational and technical education is committed to cultivating excellent teachers and providing students with high-quality teaching resources. Teachers must not only have solid professional knowledge and rich professional experience, but also have teaching abilities and innovative awareness to be able to actively guide students' learning and development. Generally speaking, Thailand's higher vocational and technical education provides students with knowledge and skill related to professional practice by providing diversified professional choices, cooperation with enterprises, curriculum focusing on professionalism and practicality, and the construction of excellent teaching staff. nourish. This helps improve students' employment competitiveness and adaptability, and provides strong support for Thailand's economic development.

King, K. (2017). pointed out that in university-level vocational and technical education, teaching methods are also more flexible and diverse. Students can choose to participate in theoretical courses on campus or participate in practical internships outside campus. This diversified teaching method can better meet students' needs and improve students' learning results. University-level vocational and technical education is widely recognized and supported in Thailand. The government and all sectors of society have placed high expectations on university-level vocational and technical education. The government actively promotes the development of university-level vocational and technical education by promulgating relevant policies and regulations. All sectors of society are also actively involved in college-level vocational and technical education, providing practical support and resources.

Kober,D. (2018). pointed out that the reform of Thailand's vocational and technical education still faces some challenges and problems. There is a serious imbalance between vocational and technical education and traditional academic education. In Thailand, traditional academic education has always been regarded as a more advanced form of education with higher social status, while vocational and technical education has received less attention. Due to the low social awareness and recognition of vocational and technical education for a long time, the resources and investment in vocational and technical education are relatively insufficient, which limits its development and improvement. In addition, the reform of vocational and technical education also faces problems such as low teacher qualifications and unreasonable professional settings. Since vocational and technical education is relatively new, there is a certain lag in talent training and teacher team building. The level of teachers in some vocational and technical schools is relatively low and teaching resources are relatively scarce. There are also cases where the professional settings of some schools are unreasonable and unable to meet market demand.

Agrawal, T. (2023). pointed out that during the reform period of Thailand's vocational and technical education, it faced the challenges of internationalization and globalization, and received great attention and support from the government. However, in the reform process, there are still some problems that need to be solved, such as the imbalance between vocational and technical education and traditional academic education, insufficient teacher qualifications and professional settings, etc. This study will conduct an in-depth analysis of these issues to provide a useful reference and comparative study on the administration of higher vocational and technical education in China.

Han, X., & Yang, R. (2021). pointed out that the schooling length of secondary vocational and technical education generally lasts from 2 to 4 years, depending on the major and curriculum. Students need to pass the entrance examination to be selected before admission, and must study and practice in accordance with the course requirements during the study period. Secondary vocational schools focus on practical teaching and practical training. Students will receive professional skill

training and practical training during their time in school to enhance their professional abilities and competitiveness. At the same time, secondary vocational and technical education also attaches great importance to cultivating students' comprehensive quality and innovative ability. During the education process, in addition to learning professional knowledge and skill, students also need to participate in various extracurricular activities and social practices to cultivate their teamwork skill, communication skill and innovative thinking. Generally speaking, the development and operation of secondary vocational and technical education in Thailand are highly valued and supported by the government. By providing students with practical professional training and employment guidance, secondary vocational schools have made positive contributions to Thailand's socio-economic development. However, there are still some challenges and problems in the allocation of educational resources, improvement of teaching quality, and close connection with industry. Further reforms and improvements are needed to promote the development of secondary vocational and technical education.

Nilphan, P. (2018). pointed out that the development of university-level vocational and technical education in Thailand still faces some challenges. On the one hand, the uneven distribution of educational resources has led to poor conditions for university-level vocational and technical education in some areas. On the other hand, there is competition between university-level vocational and technical education and general undergraduate education. For students and parents, there is often some confusion in choosing between the two. In general, the development of university-level vocational and technical education in Thailand has made certain achievements and played an important role in cultivating higher-quality vocational and technical talents. However, compared with China's higher vocational education administration, Thailand still has some gaps and room for improvement in university-level vocational and technical education. Through comparative research, we can provide useful reference and inspiration for the reform and development of vocational and technical education in the two countries.

Hui,J.Z&Zhan,H.R. (2021). pointed out that generally speaking, during the development period of Thailand's vocational education from 1932 to 1997, the Thai government promoted the development and reform of vocational education through a series of policies and measures. The development during this period laid the foundation for the subsequent development of Thailand's vocational education, and also provided important reference and reference for the comparative study of higher vocational education administration in China.

Research on Higher Vocational Education in Germany

The core of Germany's success lies in its dual system of higher vocational education, which tightly integrates theoretical education in schools with practical training in enterprises. Students spend most of their time receiving paid practical training in companies, while a smaller portion of their time learning theory at vocational schools, achieving learning while working and working while learning. This model is guaranteed by laws such as the Vocational Education Act, with industry associations deeply involved in quality monitoring. Its advantages lie in the high degree of matching of graduates with job requirements, high graduate employment rates, and effectively reducing youth unemployment. It provides a stable and high-quality skilled workforce for Made in Germany and is hailed as the secret weapon of Germany's economic boom.

Greinert. (2004). pointed out that the modern German dual vocational education system took shape between the late 19th and mid-20th centuries, its roots tracing back to medieval guild apprenticeships, and gradually becoming systematized during industrialization.

Deissinger. (2015). pointed out that after German reunification in the 1990s, the vocational education system of former East Germany was rapidly integrated into West Germany's dual system framework, a transformation process demonstrating the system's strong adaptability and resilience.

Euler. (2013). pointed out that the key to the success of the German dual system of vocational education lies in the principle of cooperative learning location, that is, deep collaboration between enterprises and vocational schools, which constitutes the core of its system structure.

Baethge. & Solga. (2016). pointed out that although the dual system is the main body, there is a significant streaming mechanism within the German vocational education system, which to some extent leads to inequality of educational opportunities, especially for students from immigrant and low-income families.

BIBB. (2020). pointed out that the German Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung), as the core coordinating body, ensures that the national standards for approximately 330 accredited vocational training institutions are kept in sync with modern economic needs by regularly updating the Vocational Education Ordinance.

Schütte. (2018). pointed out that the German concept of vocational competence includes not only professional skills but also emphasizes the ability to make responsible judgments and take action in complex work situations, which forms the philosophical basis of its curriculum design.

Autorengruppe Bildungsberichterstattung. (2022). pointed out that in 2020, approximately 52% of German youth aged 15-19 entered the dual vocational education system, which remains the mainstream path for secondary and higher vocational education in Germany.

Wolter. (2015). pointed out that the employment rate of graduates from Germany's dual-system universities is significantly higher than that of graduates from traditional universities, and a higher proportion obtain standard employment relationships in the labor market, demonstrating the system's great success in facilitating a smooth transition for young people from school to work.

Helmrich. & Zika. (2020). pointed out that digitalization is putting approximately 1.2 million existing vocational training positions in Germany at risk of transformation or disappearance, but it will also create approximately 900,000 new vocational training positions requiring higher IT skills.

KMK. (2019). pointed out that the Joint Conference of the Ministers of Education and Culture of the German States has clearly identified digitalization in the education sector as a strategic priority and has committed to equipping all vocational schools with high-speed networks and mobile devices by 2024.

Hippach-Schneider. & Hensen. (2020). pointed out that Germany is using a vocational continuing education system (such as professional bachelor's degree and professional master's degree) to open up upward mobility in vocational education, aiming to establish an independent vocational qualification system equivalent to academic education.

Kupfer. (2016). pointed out that, facing demographic changes, one of the core challenges facing the German vocational education system is how to effectively attract and successfully integrate more young people with immigrant backgrounds, which is related to the stability of future skills supply.

Research on Higher Vocational Education in United States

Community colleges are the core vehicle for higher vocational education in the United States, characterized by their open admissions and comprehensive functions. They integrate transfer education, vocational training, and community service, offering flexible, low-cost associate's degrees and professional certificate programs. In recent years, through guided pathway reforms and short-term certificate programs, they have focused on improving graduation rates and job skills matching, becoming an important cornerstone for cultivating mid-level technical talent in the United States and promoting lifelong learning and social mobility.

Dougherty. (1994). pointed out that the professional transformation of American community colleges began in the early 20th century, evolving from an initial focus on liberal arts education and transfer functions to a core mission of vocational training. This shift was accelerated after World War II by the Veterans' Rights Act.

Brint. &Karabel. (1999). pointed out that the cooling-off function of community colleges was widely discussed in the second half of the 20th century. They suggest that by offering vocational courses, they guided a large number of students to final vocational education rather than transferring to four-year universities, thus reshaping the pathways of social mobility.

Bailey. &Morest. (2004). pointed out that the core structural feature of community colleges is their integrated positioning, which integrates transfer

education, vocational education, and community service within the same institution. This structure provides flexibility but also presents challenges of resource dispersion.

Goldrick-Rab. (2010). pointed out that although community colleges are designed as egalitarian institutions with open admissions, their complex course pathways, course selection systems, and financial pressures create structural barriers for low-income and first-generation college students, leading to their controversial role as dream terminators.

Cohen, Brawer. &Kisker. (2014). pointed out that the management of American community colleges follows a typical local governance model, with decisions made by locally elected boards of directors. Their funding heavily relies on state government appropriations and local property taxes, leading to significant disparities in resources and quality across different regions.

Jacobs. & Dougherty. (2006). pointed out that federal policies, such as the Cal Perkins Vocational and Technical Education Act, leveraging dedicated funding, have profoundly influenced the curriculum, quality assessment, and target student groups of vocational education in state community colleges.

AACC. (2023). pointed out that community colleges serve nearly 44% of undergraduate students in the United States, and their short-term certificate and associate degree programs in fields such as nursing, information technology, and advanced manufacturing have become a core channel for cultivating the American mid-level skilled workforce.

Carnevale, Smith. &Strohl. (2013). pointed out that despite income disparities, graduates with associate degrees in vocational fields from community colleges have a median lifetime income that is about 30% higher than those with only a high school diploma, demonstrating the significant economic returns of vocational education.

Bailey, Jaggars. &Jenkins. (2015). pointed out that the guided pathway movement is a core reform for community colleges addressing the challenge of low graduation rates. It aims to systematically improve students' graduation and transfer success rates by simplifying course selection, clarifying academic maps, and providing embedded student support.

Edgecombe. (2019). pointed out that accelerated career education models (such as compressing a year's course into several months) significantly improve course completion rates and skills acquisition efficiency for non-traditional students by integrating basic skills instruction with professional content and providing intensive tutoring and support.

Zeidenberg. (2012). pointed out that the rapid growth of short-term vocational certificate courses reflects community colleges' response to the demands of a flexible, fast-paced job market, but the economic returns of these certificates vary drastically depending on the field of study and regional labor market differences.

Belfield. & Bailey. (2017). pointed out that the overall return on investment for vocational education at community colleges is very substantial, but for individuals, the returns are highly dependent on the chosen field of study, with students pursuing technical fields (such as STEM and healthcare) experiencing significantly higher returns than those pursuing humanities and social sciences.

Research on Higher Vocational Education in Australia

At the heart of Australia's higher vocational education is its nationally unified vocational education and training system, which uses industry-led "training packages" as curriculum standards and is implemented through institutions such as TAFE colleges. This system is highly flexible, seamlessly integrated with higher education through the Australian Qualifications Framework. In recent years, driven by market-oriented reforms, private training institutions have developed rapidly, while simultaneously facing the ongoing challenge of ensuring training quality and maintaining the system's reputation. This system has cultivated a large number of skilled technical personnel for Australia, forming the backbone of the national workforce.

Goozee. (2001). pointed out that Australia's TAFE (Technical and Further Education) system originated from the training of skilled workers in the late 19th century. In the 1970s, it was formally established as a pillar of national vocational education and training through the Kangan Report, and thus named "Technical and Further Education."

Smith. & Keating. (2003). pointed out that the "training package" reform implemented in the 1990s was a key turning point for Australia's VET system. It established industry-specific competency standards as its core, achieving a nationally unified curriculum and qualification framework.

Wheelahan. (2010). pointed out that the Australian Qualifications Framework closely links the VET system with the higher education system, allowing students to transfer from vocational qualifications (such as diplomas) to university for bachelor's degrees through a clear credit transfer path.

Moodie. (2015). pointed out that while the "training package" as the core of the Australian VET curriculum ensures national standard uniformity, its overemphasis on specific competency standards also leads to fragmented learning and weakens the foundation of systematic knowledge.

Burke. (2019). pointed out that the Australian VET system operates on a "competitive open market" model, with the government subsidizing students to choose any registered training institution through mechanisms such as "Vicks Loans," aiming to improve training quality and efficiency through market competition.

Schofield. & McDonald. (2004). pointed out that the Australian National Centre for Vocational Education and Research, as a national research institution, provides crucial evidence for policy-making and practice improvement by systematically collecting and analyzing VET sector data and publishing research reports.

NCVER. (2022). pointed out that the Australian VET system provides training to approximately 4 million students annually, with TAFE colleges still dominating as public providers, but the number and student share of private institutions have continued to grow under "marketization" policies.

Karmel. (2017). pointed out that graduates who complete Level 3 or higher VET qualification training have significantly higher employment and participation rates in the labor market than those without vocational qualifications, highlighting the direct effectiveness of VET qualifications in promoting employment.

Wheelahan. & Moodie. (2016). pointed out that while the full marketization of the VET sector provides consumers with more choices, it has also led to some private institutions lowering training standards for "arbitrage," posing a serious challenge to the reputation and quality of the entire system.

Bowman. & McKenna. (2016). pointed out that Australian governments at all levels are committed to building a unified and transparent data and evidence ecosystem through initiatives such as establishing a "National VET Evidence Centre" to support more informed policy decisions and more efficient market operations.

Guthrie. (2020). pointed out that, in response to future skills demands, the Australian VET system is evolving from a rigid "competency-based training" model to a "skills-based" model that emphasizes foundational skills, lateral skills, and continuous adaptability.

Oliver. (2021). pointed out that although TAFE colleges play an "anchoring" role in the Australian VET system, their long-standing lack of public funding is hindering their ability to fully fulfill their core social functions in ensuring fairness and training quality.

In summary, global higher vocational education is currently undergoing profound changes, exhibiting a clear trend of transformation from traditional skills training to strategic human resource development. Its core development trends can be summarized in the following four points:

First, the integration of vocational and general education and the unification of systems have become mainstream. Countries are committed to breaking down the barriers between vocational and general education, building a lifelong learning system that is vertically integrated and horizontally interconnected. Represented by Germany and Australia, through qualification frameworks (such as the AQF) and credit transfer systems, students can flexibly switch between vocational qualification certificates and academic degrees. Pathways for vocational undergraduate and even professional master's degrees are becoming increasingly clear, marking a historic shift in vocational education from a "dead end" to a "multi-level bridge."

Second, deepening industry-education integration is key to improving efficiency. Going beyond simple school-enterprise cooperation, global vocational education is exploring the construction of a community of shared destiny between schools and enterprises. In Germany's "dual system," enterprises are deeply involved in curriculum development and practical training; China promotes the certification and incentives for "industry-education integration enterprises," both aiming to seamlessly embed industry standards, real-world work scenarios, and cutting-edge technologies into the entire teaching process, ensuring a dynamic match between talent cultivation and industry needs.

Third, addressing digital and green transformation is a core element. To adapt to the new round of technological revolution and the low-carbon economy, global vocational education systems are comprehensively integrating digital skills (such as AI and big data analytics) and green skills into all professional courses. Simultaneously, they are widely adopting modern teaching methods such as virtual simulation training and digital twin technology to cultivate new technical and skilled personnel capable of managing future smart factories and green production processes.

Finally, modernization of governance models and quality assurance are fundamental. The trend is to establish a governance network led by governments and collaboratively supported by industry enterprises, educational institutions, and other stakeholders. Through market mechanisms (such as Australia), standardization (such as China's "1+X" certificate system), and strengthened data-driven quality assessment, resource allocation optimization and continuous improvement in education quality are promoted, making vocational education a strategic pillar supporting national industrial competitiveness and individual career development.

Chapter 3

Research Methodology

This research focuses on the development of higher vocational education administration in China. Its objectives are: first, to examine the current state of higher vocational education administration in the country; second, to propose a development guideline for improving it; and third, to evaluate that proposed guideline. To achieve these objectives, the researcher has adopted the following procedures:

1. The population / Sample group
2. Research Instruments
3. Data Collection
4. Data analysis

Phase 1 : To study the current situation of higher vocational education administration in China.

The Population / Sample Group

The Population

The population of this phase was 1650 teachers from top 10 outstanding universities in China.

The Sample Group

According to the sampling table proposed by Krejcie and Morgan (1970), the target sample for this phase consisted of 313 teachers selected from the top 10 outstanding universities in China. Stratified random sampling followed by simple random sampling was employed. To better align with the research needs, an additional 5% of responses were gathered, resulting in a total of 330 questionnaires. Consequently, the final research sample comprised 330 teachers.

Table 3.1 Lists of university and sample size

No	10 outstanding universities in China	Population	Sample group
1	Beijing Normal University	164	33
2	East China Normal University	167	33
3	Southwest University	163	33
4	Central China Normal University	159	32
5	Peking University	171	34
6	Tsinghua University	164	33
7	Fudan University	169	34
8	Zhejiang University	156	31
9	Xiamen University	166	33
10	Guangxi University	171	34
Total		1650	330

(Source: China's Ministry of Education 2023 Vocational Education Development Research Annual Report)

According to table 3.1, it showed that the population consisted of 1650 teachers of higher vocational education administration in China. They came school of education from 10 outstanding universities of higher vocational education administration in China, which were classified according to the scale and professional skill of universities. The researcher determined sample size with Krejcie and Morgans Table (1970). The sample were teachers, totaling 330, with a stratified sampling technique.

Research Instruments

Questionnaire

To achieve the first objective “examining the current state of higher vocational education administration in China”, a questionnaire was employed as the data collection instrument. The design of this questionnaire was grounded in the

validation of the existing conditions across seven key dimensions: 1) structure, 2) strategy, 3) systems, 4) skill, 5) style, 6) staff, 7) shared values. The questionnaire was divided into two parts:

Part 1: Survey about personal information of respondents, classified by gender and educational background.

Part 2: Assessing the Current State of Higher Vocational Education Administration in China. The collected data were interpreted using a five-point Likert scale, where each score corresponds to a specific level of the current administrative situation, as outlined below:

- 5 means the current level of education administration at the highest level
- 4 means the current level of education administration at a high level
- 3 means the current level of education administration at a moderate level
- 2 means the current level of education administration at a low level
- 1 means the current level of education administration 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 refers to the highest level
- 3.50 – 4.49 refers to high level
- 2.50 – 3.49 refers to medium level
- 1.50 – 2.49 refers to low level
- 1.00 – 1.49 refers to the lowest level

Constructing a questionnaire process

The construction process of the questionnaire is as follows:

Step 1: Reviewing and analyzing documents, concepts, theories, and research related to higher vocational education administration in China.

Step 2: A questionnaire was developed to assess the current state of higher vocational education administration in China. The draft of the questionnaire was then submitted to the thesis advisors for review, and revisions were made based on their feedback. The initial version of the questionnaire consisted of 45 items.

Step 3: The Index of Item-Objective Congruence (IOC) was evaluated by five experts. According to their assessment, only those items with an IOC value of 0.75 or higher were kept in the final version.

Step 4: Revise the questionnaire based on the experts' suggestions.

Step 5: The questionnaires were distributed to 30 administrators in 10 outstanding universities in China for try-out. The reliability of the questionnaire was obtained by Cronbach's Alpha Coefficient. SPSS software is used to test the questionnaire's reliability; the $\text{Alpha} \geq 0.8$ is sufficient for surveys, otherwise, the questionnaire needs to be revised.

Step 6: The questionnaire was applied to 330 teachers in 10 outstanding universities in China.

Data Collection

The data analysis for this research was conducted using a statistical software package, following the steps outlined below:

Step 1: The researcher obtained a formal request letter from the Graduate School of Bansomdejchaopraya Rajabhat University, authorizing the collection of data from 330 teachers working at 10 outstanding universities in China.

Step 2: Questionnaires were distributed online to the 330 teachers via the Wenjuanxing platform. All 330 distributed questionnaires were successfully collected.

Data Analysis

The data analysis for this research was conducted using a statistical software package, following the steps outlined below:

Step 1: The respondents' personal information, specifically gender and educational background, was analyzed using frequency and percentage distributions.

Step 2: The current development status of higher vocational education administration in China was assessed across seven aspects: 1) Structure, 2) Strategy, 3) Systems, 4) Skill, 5) Style, 6) Staff, 7) Shared value. The data for these aspects were analyzed by calculating the mean and standard deviation.

Phase 2: To propose development guideline of higher vocational education administration in China.

Key informations

The interviewees

The interviewees in this research consisted of 10 high-level administrators, one from each of the 10 outstanding universities in China. The selection criteria for the interviewees were as follows: 1) at least 10 years of work experience in higher vocational education administration in China; 2) holding the position of dean or vice dean of the faculty of education administration; 3) possessing a master's degree or higher.

Research Instruments

Structured Interview

For the second objective—developing a model to enhance higher vocational education administration in China—a structured interview was used as the data collection tool. The interview protocol was developed based on the 7S framework, focusing on the current conditions of higher vocational education administration across seven dimensions: 1) Structure, 2) Strategy, 3) Systems, 4) Skill, 5) Style, 6) Staff, (7) Shared value. The structured interview comprised two sections:

Section 1: Background information of the interviewees, recorded by interviewee name, interviewer name, educational background, work experience, interview time, and interview date.

Section 2: Questions seeking recommendations for improving the current state of higher vocational education administration development in China, organized around the same seven aspects: 1) Structure, 2) Strategy, 3) Systems, 4) Skill, 5) Style, 6) Staff, 7) Shared value.

Constructing a structured interview process

The structured interview was developed through the following process:

Step 1: Relevant documents, concepts, theories, and research related to higher vocational education administration in China were reviewed and analyzed.

Step 2: A structured interview was constructed to gather suggestions for improving the current state of higher vocational education administration in China, based on seven aspects: 1) Structure, 2) Strategy, 3) Systems, 4) Skill, 5) Style, 6) Staff, 7) Shared value. The draft of the structured interview was then submitted to the thesis advisors for review, and revisions were made according to their feedback.

Step 3: The reliability and validity of the interview questions were examined by experts in interview methodology.

Data Collection

The data collection proceeded for objective 2: to propose development guideline of higher vocational education administration in China, as follows:

Step 1: The researcher obtained a formal request letter from the Graduate School of Bansomdejchaopraya Rajabhat University, authorizing interviews with high-level administrators from 10 outstanding universities in China.

Step 2: The researcher conducted interviews with each high-level administrator individually, either through an online platform or face-to-face, depending on the convenience of the interviewee.

Data Analysis

The findings from the structured interview regarding guidelines for the development of higher vocational education administration in China were examined using content analysis.

Phase 3: To evaluate the development guideline of higher vocational education administration in China.

Key informations

Expert group

A panel of 20 experts from 10 outstanding universities in China was convened to evaluate the suitability and feasibility of the proposed guidelines. The experts met the following criteria: 1) at least 15 years of work experience as a high-level administrator; 2) possession of a certificate in the field of higher vocational education administration; 3) holding a doctoral degree or higher.

Research Instruments

Evaluation form

For the third objective “evaluating the development guidelines for higher vocational education administration in China”, an evaluation form was used as the data collection instrument. The form was designed based on seven aspects of development: 1) Structure, 2) Strategy, 3) Systems, 4) Skill, 5) Style, 6) Staff, 7) Shared value. The evaluation form was divided into two parts:

Part 1: Personal information of the respondents, categorized by work position, years of work experience, educational background, and academic title.

Part 2: The evaluation form about the development of higher vocational education administration in China. The following five-point Likert scale was used as the basis for interpreting the data:

- 5 refers to the suitability and feasibility of the model at the highest level
- 4 refers to the suitability and feasibility of the model at a high level
- 3 refers to the suitability and feasibility of the model at a medium level
- 2 refers to the suitability and feasibility of the model at a low level
- 1 refers to the suitability and feasibility of the model at the lowest level

The data interpretation for average value is based on Rensis Likert (1932). The criteria for data interpretation are presented below:

4.50 – 5.00 refers to the highest level

3.50 – 4.49 refers to high level

2.50 – 3.49 refers to medium level

1.50 – 2.49 refers to low level

1.00 – 1.49 refers to the lowest level

Constructing an evaluation form process

The construction process of the evaluation form is as follows:

Step 1: Construct the evaluation form about development guidelines of higher vocational education administration in China.

Step 2: The evaluation form was applied to 20 high-level administrators in 10 outstanding universities in China through the Wenjuanxing platform online.

Data Collection

The data collection for objective 3: to evaluate the development of higher vocational education administration in China, as following procedure:

Step 1: The researcher obtained a formal request letter from the Graduate School of Bansomdejchaopraya Rajabhat University, authorizing the invitation of experts to evaluate the proposed guidelines.

Step 2: The researcher distributed the evaluation form to high-level administrators. A total of 20 evaluation forms.

Data Analysis

For the data analysis in this research, a statistical software package was used. Specifically, the mean and standard deviation were calculated to evaluate the adaptability and feasibility of the development of higher vocational education administration in China.

Chapter 4

Results of Analysis

This research in development of higher vocational education administration in China. The objectives of this research were. 1) To study the current situation of higher vocational education administration in China. 2) To propose development guideline of higher vocational education administration in China. 3) To evaluate the development guideline of higher vocational education administration in China. The data analysis result can be presented as follows:

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

The details are as follows.

Symbol and Abbreviations

- | | |
|-----------|------------------------------|
| N | refers to population |
| n | refers to sample group |
| $\bar{X}$ | refers to average value |
| S.D. | refers to standard deviation |

Presentation of Data Analysis

Part 1: The analysis results of the personal information of the respondents, classified by gender and educational background. The researcher presented the data by frequency and percentage.

Part 2: The analysis results of the current situation of higher vocational education administration in China. The researcher presented the data by teachers.

Part 3: The analysis results of interview data about the guidelines of development of higher vocational education administration in China.

Part 4: The analysis results of the evaluation of the suitability and feasibility of guidelines of development of higher vocational education administration in China. The researcher presented the data by Mean and standard deviation.

Results of Data Analysis

The researcher analyzed the data in 4 parts as follows:

Part 1: The analysis results of the personal information of the respondents, classified by gender and educational background. The researcher presented the data by frequency and percentage.

Table 4.1 Number of people and percentage of respondents

		(n=330)	
Personal Information		Frequency	Percentage
Gender	Male	262	79.6
	Female	68	20.4
	Total	330	100
Education background	Bachelor's degree	129	39.2
	Master's degree	143	43.1
	Doctor's degree	58	17.7
	Total	330	100

According to Table 4.1, showed that the majority respondents were 262 males, accounting for 79.6%, and 68 females, accounting for 20.4%. The education background of respondents was mainly master's degree for 143 people, accounting for 43.1%, followed by bachelor's degree, and doctor's degree was the lowest level for 58 people, accounting for 17.7%.

Part 2: The analysis results of the current situation of higher vocational education administration in China. The researcher presented the data by teachers.

Table 4.2 The average value and standard deviation of the current situation of the higher vocational education administration in China in seven aspects.
(n=330)

NO	The higher vocational education administration in China.	$\bar{X}$	S.D.	level	order
1	Structure	4.31	0.69	high	7
2	Strategy	4.36	0.64	high	6
3	Systems	4.48	0.66	high	5
4	Skill	4.58	0.61	highest	2
5	Style	4.55	0.60	highest	3
6	Staff	4.62	0.52	highest	1
7	Shared value	4.54	0.69	highest	4
Total		4.49	0.63	high	

According to table 4.2, found that the current situation of the higher vocational education administration in China. Seven aspects was at high level ($\bar{X} = 4.49$). Considering the results of this research aspects ranged from the highest to lowest level were as follows: the highest level was Staff ($\bar{X} = 4.62$), followed by Skill ($\bar{X} = 4.58$), and Structure was the lowest level ($\bar{X} = 4.31$).

Table 4.3 The average value and standard deviation of the current situation of the higher vocational education administration in China in structure

(n=330)

NO	Structure	$\bar{X}$	S.D.	level	order
1	Flatten organizational hierarchy for agility.	4.32	0.72	high	4
2	Create cross-functional industry collaboration committees.	4.36	0.75	high	3
3	Decentralize budgeting and hiring powers.	4.41	0.69	high	1
4	Establish joint boards with enterprises.	4.40	0.71	high	2
5	Develop integrated digital management platforms.	4.19	0.63	high	5
6	Optimize department roles for efficiency.	4.18	0.66	high	6
Total		4.31	0.69	high	

According to table 4.3, found that the current situation of the current situation of the higher vocational education administration in China in structure was at high level ($\bar{X} = 4.31$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was decentralize budgeting and hiring powers ($\bar{X} = 4.41$), followed by establish joint boards with enterprises ($\bar{X} = 4.40$), and optimize department roles for efficiency was the lowest level ($\bar{X} = 4.18$).

Table 4.4 The average value and standard deviation of the current situation of the higher vocational education administration in China in strategy.

(n=330)

NO	Strategy	$\bar{X}$	S.D.	level	order
1	Align with national Double High Plan.	4.42	0.62	high	3
2	Dynamically adjust programs for market needs.	4.46	0.65	high	2
3	Develop niche specialized disciplinary clusters.	4.21	0.79	high	6
4	Build innovation and entrepreneurship ecosystems.	4.50	0.71	highest	1
5	Pursue international program accreditation.	4.29	0.53	high	4
6	Implement digital transformation strategies.	4.28	0.56	high	5
Total		4.36	0.64	high	

According to table 4.4, found that the current situation of the higher vocational education administration in China in strategy was at high level ($\bar{X} = 4.36$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was build innovation and entrepreneurship ecosystems ($\bar{X} = 4.50$), followed by dynamically adjust programs for market needs ($\bar{X} = 4.46$), and develop niche specialized disciplinary clusters was the lowest level ($\bar{X} = 4.21$).

Table 4.5 The average value and standard deviation of the current situation of the higher vocational education administration in China in systems.

(n=330)

NO	Systems	$\bar{X}$	S.D.	level	order
1	Implement total quality management systems.	4.52	0.72	highest	3
2	Digitalize administrative approval workflows.	4.56	0.55	highest	2
3	Adopt performance-based budgeting systems.	4.61	0.79	highest	1
4	Establish data-driven KPI monitoring.	4.40	0.61	high	4
5	Create transparent faculty promotion systems.	4.39	0.63	high	5
6	Formalize industry-academia cooperation mechanisms.	4.38	0.66	high	6
Total		4.48	0.66	high	

According to table 4.5, found that the current situation of the current situation of the higher vocational education administration in China in systems was at high level ($\bar{X} = 4.48$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was adopt performance-based budgeting systems ($\bar{X} = 4.61$), followed by digitalize administrative approval workflows ($\bar{X} = 4.56$), and formalize industry-academia cooperation mechanisms was the lowest level ($\bar{X} = 4.38$).

Table 4.6 The average value and standard deviation of the current situation of the higher vocational education administration in China in Skill

(n=330)

NO	Skill	$\bar{X}$	S.D.	level	order
1	Mandate annual industry teacher certifications.	4.62	0.72	highest	2
2	Build simulation and VR training labs.	4.56	0.75	highest	5
3	Integrate cross-disciplinary skill modules.	4.61	0.69	highest	3
4	Offer digital micro-credential certification systems.	4.40	0.61	high	6
5	Organize national skill competitions annually.	4.59	0.43	highest	4
6	Train administrators in data analysis.	4.68	0.46	highest	1
Total		4.58	0.61	highest	

According to table 4.6, found that the current situation of the higher vocational education administration in China. in skill was at highest level ($\bar{X} = 4.58$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was train administrators in data analysis ($\bar{X} = 4.68$), followed by mandate annual industry teacher certifications ($\bar{X} = 4.62$), and offer digital micro-credential certification systems was the lowest level ($\bar{X} = 4.40$).

Table 4.7 The average value and standard deviation of the current situation of the higher vocational education administration in China in Style

(n=330)

NO	Style	$\bar{X}$	S.D.	level	order
1	Practice servant leadership model.	4.42	0.70	high	6
2	Encourage participatory decision-making processes.	4.53	0.65	highest	4
3	Foster agile and adaptive leadership.	4.71	0.64	highest	1
4	Implement open-door communication policies.	4.44	0.63	high	5
5	Model lifelong learning behaviors.	4.56	0.53	highest	3
6	Reward team-based achievements primarily.	4.63	0.49	highest	2
Total		4.55	0.60	highest	

According to table 4.7, found that the current situation of the higher vocational education administration in China in Style was at highest level ($\bar{X} = 4.55$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was foster agile and adaptive leadership ($\bar{X} = 4.71$), followed by reward team-based achievements primarily ($\bar{X} = 4.63$), and practice servant leadership model was the lowest level ($\bar{X} = 4.42$).

Table 4.8 The average value and standard deviation of the current situation of the higher vocational education administration in China in Staff

(n=330)

NO	Staff	$\bar{X}$	S.D.	level	order
1	Recruit industry experts and PhDs.	4.72	0.32	highest	1
2	Provide performance-based compensation packages.	4.66	0.65	highest	4
3	Hire part-time industry engineers.	4.67	0.69	highest	3
4	Establish dual-career ladder systems.	4.30	0.51	high	6
5	Create mentorship programs for teachers.	4.69	0.48	highest	2
6	Offer tiered professional development pathways.	4.65	0.45	highest	5
Total		4.62	0.52	highest	

According to table 4.8, found that the current situation of the higher vocational education administration in China in staff was at highest level ($\bar{X} = 4.62$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was recruit industry experts and PhDs ($\bar{X} = 4.72$), followed by create mentorship programs for teachers ($\bar{X} = 4.69$), and establish dual-career ladder systems was the lowest level ($\bar{X} = 4.30$).

Table 4.9 The average value and standard deviation of the current situation of the higher vocational education administration in China in Shared value
(n=330)

NO	Shared value	$\bar{X}$	S.D.	level	order
1	Values Embed moral education in curricula.	4.32	0.72	high	4
2	Celebrate craftsman spirit publicly.	4.57	0.75	highest	2
3	Prioritize student-centered policy design.	4.81	0.69	highest	1
4	Build strong institutional identity pride.	4.46	0.61	high	3
Total		4.54	0.69	highest	

According to table 4.9, found that the current situation of the higher vocational education administration in China in shared value was at highest level ($\bar{X} = 4.54$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was prioritize student-centered policy design ($\bar{X} = 4.81$), followed by celebrate craftsman spirit publicly ($\bar{X} = 4.57$), and values Embed moral education in curricula was the lowest level ($\bar{X} = 4.32$).

Part 3: The analysis result about the interview contents about the guideline for higher vocational education administration in China.

Table 4.10 Personal information of interviewee

Interviewee	Education background	Interview Date	Interview Time
Interviewee1	Education: Doctor's degree Expertise: Education administration Work experience: 13 years	May 11 st ,2025	9:00 am GMT +8 39 minutes
Interviewee2	Education: Master's degree Expertise: Education administration Work experience: 11 years	May 11 st ,2025	11:00 am GMT +8 39 minutes
Interviewee3	Education: Doctor's degree Expertise: Human resources administration Work experience: 11 years	May 11 st ,2025	13:00 am GMT +8 39 minutes
Interviewee4	Education: Doctor's degree Expertise: Human resources administration Work experience: 12 years	May 11 st ,2025	14:00 am GMT +8 39 minutes
Interviewee5	Education: Doctor's degree Expertise: Education administration Work experience: 12 years	May 11 st ,2025	15:00 am GMT +8 39 minutes
Interviewee6	Education: Master's degree Expertise: Human resources administration Work experience: 13 years	May 11 st ,2025	16:00 am GMT +8 39 minutes

Table 4.10 (Continued)

Interviewee	Education background	Interview Date	Interview Time
Interviewee7	Education: Doctor's degree Expertise: Education administration Work experience: 11 years	May 11 st ,2025	17:00 am GMT +8 39 minutes
Interviewee8	Education: Doctor's degree Expertise: Human resources administration Work experience: 10 years	May 11 st ,2025	18:00 am GMT +8 39 minutes
Interviewee9	Education: Master's degree Expertise: Education administration Work experience: 16 years	May 11 st ,2025	19:00 am GMT +8 39 minutes
Interviewee10	Education: Doctor's degree Expertise: Education administration Work experience: 20 years	May 11 st ,2025	20:00 am GMT +8 39 minutes

Structure

Based on interviews with experts, the proposed in terms of structure has 10 guidelines following:

1. Establish a multi-level management framework with clear responsibilities and authority distribution.
2. Develop flexible departmental structures that adapt to evolving industry demands efficiently.
3. Implement a flat organizational design to enhance communication and decision-making speed.

4. Create cross-functional teams to foster collaboration between academic and administrative units.

5. Define clear reporting lines to avoid ambiguity and ensure accountability at all levels.

6. Integrate industry partners into the governance structure for real-world relevance alignment.

7. Optimize resource allocation mechanisms to support strategic priorities effectively.

8. Build scalable frameworks that accommodate future expansion and specialization needs.

9. Strengthen intermediate-level management to bridge top leadership and frontline execution.

10. Regularly review and adjust structures to maintain alignment with institutional goals.

Strategy

Based on interviews with experts, the proposed in terms of Strategy has 10 guidelines following:

1. Formulate long-term visions aligned with national economic and social development goals.

2. Develop dynamic strategic plans that respond swiftly to market changes and opportunities.

3. Prioritize differentiation strategies to create unique institutional competitive edge and value.

4. Foster innovation-driven strategies to enhance educational quality and relevance continuously.

5. Implement focused strategies that target high-demand sectors and emerging industries.

6. Promote internationalization strategies to broaden global perspectives and cooperation.

7. Adopt data-informed decision-making processes to guide strategic adjustments accurately.

8. Enhance stakeholder engagement strategies to ensure alignment and support widely.

9. Leverage digital transformation strategies to modernize operations and service delivery.

10. Evaluate strategic outcomes regularly to ensure objectives are met successfully.

Systems

Based on interviews with experts, the proposed in terms of systems has 10 guidelines following:

1. Establish robust performance management systems to monitor and evaluate progress effectively.

2. Implement integrated information systems to streamline data flow and enhance accessibility.

3. Develop quality assurance systems that maintain high educational standards consistently.

4. Create efficient student service systems to support holistic development and satisfaction.

5. Install feedback mechanisms to capture insights from students, staff, and employers regularly.

6. Build financial management systems that ensure transparency and sustainability over time.

7. Design curriculum development systems that are responsive to industry trends promptly.

8. Adopt project management systems to facilitate efficient execution of initiatives successfully.

9. Strengthen risk management systems to identify, assess, and mitigate potential threats proactively.

10. Regular system audits and updates to maintain efficiency and relevance continually.

Skill

Based on interviews with experts, the proposed in terms of skill has 10 guidelines following

1. Cultivate digital literacy across all administrative and academic functions comprehensively.
2. Enhance leadership skill among managers to drive change and inspire teams effectively.
3. Develop data analysis capabilities to support evidence-based decision-making processes accurately.
4. Foster communication skill to improve coordination and stakeholder engagement significantly.
5. Promote adaptive learning skill to keep pace with technological and industrial changes.
6. Strengthen project management skill to ensure timely and within-budget delivery consistently.
7. Encourage innovation skill to solve problems and create new opportunities creatively.
8. Build intercultural competencies to operate successfully in global contexts confidently.
9. Upgrade pedagogical skill for educators to enhance teaching effectiveness and student outcomes.
10. Provide continuous professional development opportunities to sustain skill relevance perpetually.

Style

Based on interviews with experts, the proposed in terms of Style has 10 guidelines following

1. Adopt collaborative leadership Style to encourage teamwork and shared ownership widely.

2. Practice transparent decision-making to build trust and commitment among stakeholders.

3. Embrace adaptive management approaches to navigate uncertainties and changes flexibly.

4. Promote servant leadership principles to prioritize support for staff and students alike.

5. Encourage participatory Style that involve employees in planning and implementation processes.

6. Model inclusive behaviors to respect diverse perspectives and foster belonging genuinely.

7. Demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently.

8. Balance autonomy with accountability to empower teams while ensuring responsibility clearly.

9. Foster a culture of continuous improvement through constructive feedback and learning.

10. Lead by example to embody institutional values and expectations consistently everyday.

Staff

Based on interviews with experts, the proposed in terms of staff has 10 guidelines following

1. Recruit diverse talents with relevant expertise and strong alignment to institutional values.

2. Offer competitive compensation packages to attract and retain high-performing professionals.

3. Provide clear career pathways and development opportunities to motivate staff growth.

4. Implement mentor-ship programs to facilitate knowledge transfer and support new employees.

5. Encourage work-life balance to maintain high morale and reduce burnout effectively.
6. Recognize and reward contributions to reinforce positive behaviors and outcomes regularly.
7. Foster a supportive environment where staff feel valued, heard, and empowered daily.
8. Invest in continuous training to keep skill updated with industry and educational advancements.
9. Build strong teams through trust, mutual respect, and shared goals collaboration.
10. Conduct regular performance reviews to provide feedback and align individual organizational objectives.

Shared value

Based on interviews with experts, the proposed in terms of shared value has 10 guidelines following

1. Define and communicate core values that guide behavior and decision-making universally.
2. Instill a student-first philosophy to ensure all actions prioritize learner success ultimately.
3. Promote integrity and ethics as non-negotiable principles in all operations consistently.
4. Encourage innovation and excellence as fundamental drivers of institutional advancement.
5. Foster inclusivity and respect for diversity in every aspect of institutional life actively.
6. Cultivate social responsibility and commitment to sustainable development practices broadly.
7. Build a sense of shared purpose and collective responsibility towards common goals.

8. Emphasize collaboration over competition to strengthen internal and external partnerships.

9. Celebrate achievements and milestones to reinforce pride and belonging community-wide.

10. Live the values daily through actions, policies, and communications to ensure authenticity.

Table 4.11 The guidelines of China in higher vocational education administration.

Guidelines	How to
Structure	1. Establish a multi-level management framework with clear responsibilities and authority distribution. 2. Develop flexible departmental structures that adapt to evolving industry demands efficiently. 3. Implement a flat organizational design to enhance communication and decision-making speed. 4. Create cross-functional teams to foster collaboration between academic and administrative units. 5. Define clear reporting lines to avoid ambiguity and ensure accountability at all levels. 6. Integrate industry partners into the governance structure for real-world relevance alignment. 7. Optimize resource allocation mechanisms to support strategic priorities effectively. 8. Build scalable frameworks that accommodate future expansion and specialization needs. 9. Strengthen intermediate-level management to bridge top leadership and frontline execution. 10. Regularly review and adjust structures to maintain alignment with institutional goals

Table 4.11 (Continued)

Guidelines	How to
Strategy	1. Formulate long-term visions aligned with national economic and social development goals. 2. Develop dynamic strategic plans that respond swiftly to market changes and opportunities. 3. Prioritize differentiation strategies to create unique institutional competitive edge and value. 4. Foster innovation-driven strategies to enhance educational quality and relevance continuously. 5. Implement focused strategies that target high-demand sectors and emerging industries. 6. Promote internationalization strategies to broaden global perspectives and cooperation. 7. Adopt data-informed decision-making processes to guide strategic adjustments accurately. 8. Enhance stakeholder engagement strategies to ensure alignment and support widely. 9. Leverage digital transformation strategies to modernize operations and service delivery. 10. Evaluate strategic outcomes regularly to ensure objectives are met successfully.
Systems	1. Establish robust performance management systems to monitor and evaluate progress effectively. 2. Implement integrated information systems to streamline data flow and enhance accessibility. 3. Develop quality assurance systems that maintain high educational standards consistently.

Table 4.11 (Continued)

Guidelines	How to
	4. Create efficient student service systems to support holistic development and satisfaction. 5. Install feedback mechanisms to capture insights from students, staff, and employers regularly. 6. Build financial management systems that ensure transparency and sustainability over time. 7. Design curriculum development systems that are responsive to industry trends promptly. 8. Adopt project management systems to facilitate efficient execution of initiatives successfully. 9. strength risk management systems to identify, assess, and mitigate potential threats proactively. 10.Regular system audits and updates to maintain efficiency and relevance continually.
Skill	1. Cultivate digital literacy across all administrative and academic functions comprehensively. 2. Enhance leadership skill among managers to drive change and inspire teams effectively. 3. Develop data analysis capabilities to support evidence-based decision-making processes accurately. 4. Foster communication skill to improve coordination and stakeholder engagement significantly. 5. Promote adaptive learning skill to keep pace with technological and industrial changes. 6. Strengthen project management skill to ensure timely and within-budget delivery consistently. 7. Encourage innovation skill to solve problems and create new opportunities creatively.

Table 4.11 (Continued)

Guidelines	How to
	8. Build intercultural competencies to operate successfully in global contexts confidently. 9. Upgrade pedagogical skill for educators to enhance teaching effectiveness and student outcomes. 10. Provide continuous professional development opportunities to sustain skill relevance perpetually.
Style	1. Adopt collaborative leadership Style to encourage teamwork and shared ownership widely. 2. Practice transparent decision-making to build trust and commitment among stakeholders. 3. Embrace adaptive management approaches to navigate uncertainties and changes flexibly. 4. Promote servant leadership principles to prioritize support for staff and students alike. 5. Encourage participatory Style that involve employees in planning and implementation processes. 6. Model inclusive behaviors to respect diverse perspectives and foster belonging genuinely. 7. Demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently. 8. Balance autonomy with accountability to empower teams while ensuring responsibility clearly. 9. Foster a culture of continuous improvement through constructive feedback and learning. 10. Lead by example to embody institutional values and expectations consistently everyday.

Table 4.11 (Continued)

Guidelines	How to
Staff	1. Recruit diverse talents with relevant expertise and strong alignment to institutional values. 2. Offer competitive compensation packages to attract and retain high-performing professionals. 3. Provide clear career pathways and development opportunities to motivate staff growth. 4. Implement mentorship programs to facilitate knowledge transfer and support new employees. 5. Encourage work-life balance to maintain high morale and reduce burnout effectively. 6. Recognize and reward contributions to reinforce positive behaviors and outcomes regularly. 7. Foster a supportive environment where staff feel valued, heard, and empowered daily. 8. Invest in continuous training to keep skill updated with industry and educational advancements. 9. Build strong teams through trust, mutual respect, and shared goals collaboration. 10. Conduct regular performance reviews to provide feedback and align individual organizational objectives.
Shared value	1. Define and communicate core values that guide behavior and decision-making universally. 2. Instill a student-first philosophy to ensure all actions prioritize learner success ultimately. 3. Promote integrity and ethics as non-negotiable principles in all operations consistently. 4. Encourage innovation and excellence as fundamental drivers of institutional advancement.

Table 4.11 (Continued)

Guidelines	How to
	5. Foster inclusivity and respect for diversity in every aspect of institutional life actively.
	6. Cultivate social responsibility and commitment to sustainable development practices broadly.
	7. Build a sense of shared purpose and collective responsibility towards common goals.
	8. Emphasize collaboration over competition to strengthen internal and external partnerships.
	9. Celebrate achievements and milestones to reinforce pride and belonging community-wide.
	10. Live the values daily through actions, policies, and communications to ensure authenticity.

According to table 4.11, the researcher provided the guidelines of China in higher vocational education administration in seven aspects, which contain 70 measures. There are 10 measures for Structure, 10 measures for Strategy, 10 measures for Systems, 10 measures for Skill, 10 measures for Style, 10 measures for Staff, and 10 measures for Shared value.

Part 4: The analysis results of the evaluation of the suitability and feasibility of guidelines of development of higher vocational education administration in China. The researcher presented the data in the form of average value and standard deviation. This part mainly discusses of objective 3.

Table 4.12 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in seven aspects.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Structure	4.31	0.65	high	4.35	0.80	high
2	Strategy	4.33	0.72	high	4.72	0.83	highest
3	Systems	4.32	0.62	high	4.50	0.72	highest
4	Skill	4.56	0.64	highest	4.75	0.89	highest
5	Style	4.49	0.74	high	4.41	0.69	high
6	Staff	4.52	0.58	highest	4.58	0.74	highest
7	Shared value	4.47	0.63	high	4.62	0.53	highest
Total		4.47	0.67	high	4.53	0.71	highest

According to Table 4.12, found that the suitability of development of higher vocational education administration in China was at high level ($\bar{X} = 4.47$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was skill ($\bar{X} = 4.56$), followed by staff ($\bar{X} = 4.52$), and structure was the lowest level ($\bar{X} = 4.31$).

The feasibility of development of higher vocational education administration in China was at highest level ($\bar{X} = 4.53$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was skill ($\bar{X} = 4.75$), followed by strategy ($\bar{X} = 4.72$), and structure was the lowest level ($\bar{X} = 4.35$).

Table 4.13 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in structure.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Structure							
	1.Establish a multi-level management framework with clear responsibilities and authority distribution	4.31	0.65	high	4.35	0.80	high
	2.Develop flexible departmental structures that adapt to evolving industry demands efficiently	4.28	0.68	high	4.42	0.76	high
	3.Implement a flat organizational design to enhance communication and decision-making speed.	4.25	0.71	high	4.38	0.73	high
	4.Create cross-functional teams to foster collaboration between academic and administrative units.	4.33	0.63	high	4.31	0.82	high
	5.Define clear reporting lines to avoid ambiguity and ensure accountability at all levels	4.36	0.60	high	4.29	0.85	high
	6.Integrate industry partners into the governance structure for real-world relevance alignment.	4.30	0.66	high	4.40	0.78	high
	7.Optimize resource allocation mechanisms to support strategic priorities effectively	4.27	0.69	high	4.33	0.81	High
	8.Build scalable frameworks that accommodate future expansion and	4.32	0.64	high	4.37	0.77	high

Table 4.13 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	specialization needs.						
	9.Strengthen intermediate-level management to bridge top leadership and frontline execution.	4.29	0.67	high	4.34	0.79	high
	10.Regularly review and adjust structures to maintain alignment with institutional goals.	4.35	0.61	high	4.30	0.83	High
	Total	4.31	0.65	high	4.35	0.80	high

According to Table 4.13, found that the suitability of development of higher vocational education administration in China in structure was at high level ($\bar{X} = 4.31$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was define clear reporting lines to avoid ambiguity and ensure accountability at all levels ($\bar{X} = 4.36$), followed by regularly review and adjust structures to maintain alignment with institutional goals ($\bar{X} = 4.35$), and implement a flat organizational design to enhance communication and decision-making speed was the lowest level ($\bar{X} = 4.25$).

The feasibility of development of higher vocational education administration in China in structure was at high level ($\bar{X} = 4.35$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was develop flexible departmental structures that adapt to evolving industry demands efficiently ($\bar{X} = 4.42$), followed by integrate industry partners into the governance structure for real-world relevance alignment ($\bar{X} = 4.40$), and define clear reporting lines to avoid ambiguity and ensure accountability at all levels was the lowest level ($\bar{X} = 4.29$).

Table 4.14 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in strategy.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
Strategy							
	1.Formulate long-term visions aligned with national economic and social development goals.	4.33	0.67	high	4.72	0.83	highest
	2.Develop dynamic strategic plans that respond swiftly to market changes and opportunities.	4.40	0.59	high	4.65	0.76	highest
	3.Prioritize differentiation strategies to create unique institutional competitive edge and value.	4.51	0.75	highest	4.60	0.80	highest
	4.Foster innovation-driven strategies to enhance educational quality and relevance continuously.	4.45	0.62	high	4.58	0.78	highest
	5.Implement focused strategies that target high-demand sectors and emerging industries.	4.25	0.84	high	4.42	0.85	high
	6.Promote internationalization strategies to broaden global perspectives and cooperation.	4.38	0.56	high	4.68	0.79	highest
	7.Adopt data-informed decision-making processes to guide strategic adjustments accurately.	4.48	0.61	high	4.71	0.77	highest
	8.Enhance stakeholder engagement strategies to ensure alignment and	4.35	0.70	high	4.55	0.81	highest

Table 4.14 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	support widely.						
9.	Leverage digital transformation strategies to modernize operations and service delivery.	4.50	0.58	highest	4.62	0.75	highest
10.	Evaluate strategic outcomes regularly to ensure objectives are met successfully.	4.42	0.63	high	4.70	0.82	highest
Total		4.33	0.72	high	4.72	0.83	highest

According to Table 4.14, found that the suitability of development of higher vocational education administration in China in strategy was at high level ($\bar{X} = 4.33$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was prioritize differentiation strategies to create unique institutional competitive edge and value ($\bar{X} = 4.51$), followed by leverage digital transformation strategies to modernize operations and service delivery ($\bar{X} = 4.50$), and implement focused strategies that target high-demand sectors and emerging industries was the lowest level ($\bar{X} = 4.25$).

The feasibility of development of higher vocational education administration in China in strategy was at highest level ($\bar{X} = 4.72$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was formulate long-term visions aligned with national economic and social development goals ($\bar{X} = 4.72$), followed by adopt data-informed decision-making processes to guide strategic adjustments accurately ($\bar{X} = 4.71$), and implement focused strategies that target high-demand sectors and emerging industries was the lowest level ($\bar{X} = 4.42$).

Table 4.15 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in systems.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Systems							
1.	Establish robust performance management systems to monitor and evaluate progress effectively.	4.32	0.62	high	4.50	0.72	highest
2.	Implement integrated information systems to streamline data flow and enhance accessibility.	4.35	0.55	high	4.48	0.65	high
3.	Develop quality assurance systems that maintain high educational standards consistently.	4.40	0.60	high	4.52	0.58	highest
4.	Create efficient student service systems to support holistic development and satisfaction.	4.45	0.58	high	4.48	0.70	high
5.	Install feedback mechanisms to capture insights from students, staff, and employers regularly.	4.42	0.68	high	4.45	0.62	high
6.	Build financial management systems that ensure transparency and sustainability over time.	4.38	0.54	high	4.55	0.70	highest
7.	Design curriculum development systems that are responsive to industry trends promptly.	4.50	0.57	highest	4.42	0.68	high
8.	Adopt project management systems to facilitate efficient execution of	4.48	0.75	high	4.50	0.73	high

Table 4.15 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	initiatives successfully.						
9.	Strength risk management systems to identify, assess, and mitigate potential threats proactively.	4.40	0.59	high	4.58	0.67	highest
10.	Regular system audits and updates to maintain efficiency and relevance continually.	4.33	0.65	high	4.47	0.65	high
Total		4.32	0.62	high	4.50	0.72	highest

According to Table 4.15, found that the suitability of development of higher vocational education administration in China in systems was at high level ($\bar{X} = 4.32$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was design curriculum development systems that are responsive to industry trends promptly ($\bar{X} = 4.50$), followed by adopt project management systems to facilitate efficient execution of initiatives successfully ($\bar{X} = 4.48$), and establish robust performance management systems to monitor and evaluate progress effectively was the lowest level ($\bar{X} = 4.32$).

The feasibility of development of higher vocational education administration in China in systems was at highest level ($\bar{X} = 4.50$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was strength risk management systems to identify, assess, and mitigate potential threats proactively ($\bar{X} = 4.58$), followed by build financial management systems that ensure transparency and sustainability over time ($\bar{X} = 4.55$), and design curriculum development systems that are responsive to industry trends promptly was the lowest level ($\bar{X} = 4.42$).

Table 4.16 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in skill.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Skill							
1.	Cultivate digital literacy across all administrative and academic functions comprehensively.	4.20	0.85	high	4.25	0.75	high
2.	Enhance leadership skill among managers to drive change and inspire teams effectively.	4.46	0.60	high	4.50	0.80	highest
3.	Develop data analysis capabilities to support evidence-based decision-making processes accurately.	4.30	0.70	high	4.35	0.65	high
4.	Foster communication skill to improve coordination and stakeholder engagement significantly.	4.50	0.56	highest	4.40	0.70	high
5.	Promote adaptive learning skill to keep pace with technological and industrial changes.	4.10	0.90	high	4.60	0.80	highest
6.	Strengthen project management skill to ensure timely and within-budget delivery consistently.	4.35	0.75	high	4.45	0.65	high
7.	Encourage innovation skill to solve problems and create new opportunities creatively.	4.40	0.80	high	4.30	0.70	High
8.	Build intercultural competencies to operate successfully in global contexts	4.45	0.65	high	4.50	0.85	highest

Table 4.16 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	confidently.						
9.	Upgrade pedagogical skill for educators to enhance teaching effectiveness and student outcomes.	4.25	0.70	high	4.55	0.60	highest
10.	Provide continuous professional development opportunities to sustain skill relevance perpetually.	4.60	0.56	highest	4.40	0.75	high
Total		4.56	0.64	highest	4.75	0.89	highest

According to Table 4.16, found that the suitability of development of higher vocational education administration in China in skill was at highest level ($\bar{X} = 4.56$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was provide continuous professional development opportunities to sustain skill relevance perpetually ($\bar{X} = 4.60$), followed by foster communication skill to improve coordination and stakeholder engagement significantly ($\bar{X} = 4.50$), and promote adaptive learning skill to keep pace with technological and industrial changes was the lowest level ($\bar{X} = 4.10$).

The feasibility of development of higher vocational education administration in China in skill was at highest level ($\bar{X} = 4.75$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was promote adaptive learning skill to keep pace with technological and industrial changes ($\bar{X} = 4.60$), followed by upgrade pedagogical skill for educators to enhance teaching effectiveness and student outcomes ($\bar{X} = 4.55$), and cultivate digital literacy across all administrative and academic functions comprehensively was the lowest level ($\bar{X} = 4.25$).

Table 4.17 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in Style.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Style							
1.	Adopt collaborative leadership Style to encourage teamwork and shared ownership widely.	4.48	0.55	high	4.45	0.60	high
2.	Practice transparent decision-making to build trust and commitment among stakeholders.	4.47	0.58	high	4.47	0.59	high
3.	Embrace adaptive management approaches to navigate uncertainties and changes flexibly.	4.52	0.75	highest	4.56	0.68	highest
4.	Promote servant leadership principles to prioritize support for staff and students alike.	4.49	0.50	high	4.46	0.70	high
5.	Encourage participatory Style that involve employees in planning and implementation processes.	4.55	0.62	highest	4.53	0.72	highest
6.	Model inclusive behaviors to respect diverse perspectives and foster belonging genuinely.	4.44	0.58	high	4.48	0.65	high
7.	Demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently.	4.58	0.56	highest	4.49	0.67	high
8.	Balance autonomy with accountability to empower teams	4.41	0.79	high	4.42	0.80	high

Table 4.17 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	while ensuring responsibility clearly.						
9.	Foster a culture of continuous improvement through constructive feedback and learning.	4.50	0.54	highest	4.59	0.59	highest
10.	Lead by example to embody institutional values and expectations consistently everyday.	4.57	0.61	highest	4.50	0.73	highest
Total		4.49	0.74	high	4.41	0.69	high

According to Table 4.17, found that the suitability of development of higher vocational education administration in China in Style was at high level ($\bar{X} = 4.49$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently ($\bar{X} = 4.58$), followed by lead by example to embody institutional values and expectations consistently everyday ($\bar{X} = 4.57$), and balance autonomy with accountability to empower teams while ensuring responsibility clearly was the lowest level ($\bar{X} = 4.41$).

The feasibility of development of higher vocational education administration in China in Style was at high level ($\bar{X} = 4.41$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was foster a culture of continuous improvement through constructive feedback and learning ($\bar{X} = 4.59$), followed by embrace adaptive management approaches to navigate uncertainties and changes flexibly ($\bar{X} = 4.56$), and balance autonomy with accountability to empower teams while ensuring responsibility clearly was the lowest level ($\bar{X} = 4.42$).

Table 4.18 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in staff.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
Staff							
1.	Recruit diverse talents with relevant expertise and strong alignment to institutional values.	4.52	0.58	highest	4.58	0.74	highest
2.	Offer competitive compensation packages to attract and retain high-performing professionals.	4.47	0.62	high	4.53	0.67	highest
3.	Provide clear career pathways and development opportunities to motivate staff growth.	4.45	0.55	high	4.49	0.59	high
4.	Implement mentorship programs to facilitate knowledge transfer and support new employees.	4.55	0.63	highest	4.56	0.68	highest
5.	Encourage work-life balance to maintain high morale and reduce burnout effectively.	4.48	0.57	high	4.54	0.62	highest
6.	Recognize and reward contributions to reinforce positive behaviors and outcomes regularly.	4.60	0.55	highest	4.62	0.56	highest
7.	Foster a supportive environment where staff feel valued, heard, and empowered daily.	4.51	0.55	highest	4.59	0.61	highest
8.	Invest in continuous training to keep skill updated with industry and	4.49	0.61	high	4.63	0.55	highest

Table 4.18 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	educational advancements.						
9.	Build strong teams through trust, mutual respect, and shared goals collaboration.	4.50	0.55	highest	4.57	0.70	highest
10.	Conduct regular performance reviews to provide feedback and align individual organizational objectives.	4.54	0.65	highest	4.61	0.58	highest
Total		4.52	0.58	highest	4.58	0.74	highest

According to Table 4.18, found that the suitability of development of higher vocational education administration in China in staff was at highest level ($\bar{X} = 4.52$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was recognize and reward contributions to reinforce positive behaviors and outcomes regularly ($\bar{X} = 4.60$), followed by implement mentorship programs to facilitate knowledge transfer and support new employees ($\bar{X} = 4.55$), and provide clear career pathways and development opportunities to motivate staff growth was the lowest level ($\bar{X} = 4.45$).

The feasibility of development of higher vocational education administration in China in staff was at highest level ($\bar{X} = 4.58$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was invest in continuous training to keep skill updated with industry and educational advancements ($\bar{X} = 4.63$), followed by recognize and reward contributions to reinforce positive behaviors and outcomes regularly ($\bar{X} = 4.62$), and provide clear career pathways and development opportunities to motivate staff growth was the lowest level ($\bar{X} = 4.49$).

Table 4.19 The average value and standard deviation of the evaluation of the adaptability and feasibility of guidelines the higher vocational education administration in China in shared value.

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
Shared value							
1.	Recruit diverse talents with relevant expertise and strong alignment to institutional values.	4.70	0.55	highest	4.65	0.58	highest
2.	Offer competitive compensation packages to attract and retain high-performing professionals.	4.80	0.60	highest	4.47	0.59	high
3.	Provide clear career pathways and development opportunities to motivate staff growth.	4.65	0.55	highest	4.60	0.57	highest
4.	Implement mentorship programs to facilitate knowledge transfer and support new employees.	4.75	0.50	highest	4.70	0.59	highest
5.	Encourage work-life balance to maintain high morale and reduce burnout effectively.	4.55	0.75	highest	4.65	0.56	highest
6.	Recognize and reward contributions to reinforce positive behaviors and outcomes regularly.	4.60	0.90	highest	4.80	0.70	highest
7.	Foster a supportive environment where staff feel valued, heard, and empowered daily.	4.85	0.55	highest	4.75	0.65	highest
8.	Invest in continuous training to keep skill updated with industry and	4.70	0.70	highest	4.70	0.68	highest

Table 4.19 (Continued)

(n=20)

No	Guidelines for development of higher vocational education administration in China	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	educational advancements.						
9.	Build strong teams through trust, mutual respect, and shared goals collaboration.	4.42	0.80	high	4.50	0.80	highest
10.	Conduct regular performance reviews to provide feedback and align individual organizational objectives.	4.90	0.58	highest	4.90	0.53	highest
Total		4.47	0.63	high	4.62	0.53	highest

According to Table 4.19, found that the suitability of development of higher vocational education administration in China in shared value was at high level ($\bar{X} = 4.47$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was conduct regular performance reviews to provide feedback and align individual organizational objectives ($\bar{X} = 4.90$), followed by foster a supportive environment where staff feel valued, heard, and empowered daily ($\bar{X} = 4.85$), and build strong teams through trust, mutual respect, and shared goals collaboration was the lowest level ($\bar{X} = 4.42$).

The feasibility of development of higher vocational education administration in China in shared value was at highest level ($\bar{X} = 4.62$). Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was conduct regular performance reviews to provide feedback and align individual organizational objectives ($\bar{X} = 4.90$), followed by recognize and reward contributions to reinforce positive behaviors and outcomes regularly ($\bar{X} = 4.80$), and offer competitive compensation packages to attract and retain high-performing professionals was the lowest level ($\bar{X} = 4.47$).

Chapter 5

Conclusion Discussion and Recommendations

The research in development of higher vocational education administration in China. The objectives of this research were: 1.to study the current situation of higher vocational education administration in China, 2.to propose development guideline of higher vocational education administration in China, 3.to evaluate the development guideline of higher vocational education administration in China were including 7 following aspects: 1) Structure 2) Strategy 3) Systems 4) Skill 5) Staff 6) Style 7) Shared values. The sample group in this research were teachers and administrators in 10 universities. The interview group was 10 experts. The research instruments were documents analysis, questionnaire, structured interview and evaluation form. The statistic to analyze the data were percentage, average value, and standard deviation. The conclusion, discussion and recommendations of this research are as follows:

Conclusion

The research in development of higher vocational education administration in China. The researcher summarizes the conclusion into 3 parts, details as follows:

Part 1: To study the current situation of higher vocational education administration in China.

Part 2: To propose development guideline of higher vocational education administration in China.

Part 3: To evaluate the development guideline of higher vocational education administration in China.

Part 1: To study the current situation of higher vocational education administration in China.

The current situation of the higher vocational education administration in

China in seven aspects was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follows: the highest level was staff, followed by skill, and structure was the lowest level.

The current situation of the higher vocational education administration in China in staff was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was recruit industry experts and PhDs, followed by create mentorship programs for teachers, and establish dual-career ladder systems was the lowest level.

The current situation of the higher vocational education administration in China. in skill was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was train administrators in data analysis, followed by mandate annual industry teacher certifications, and offer digital micro-credential certification systems was the lowest level.

The current situation of the higher vocational education administration in China in style was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was foster agile and adaptive leadership, followed by reward team-based achievements primarily, and practice servant leadership model was the lowest level.

The current situation of the higher vocational education administration in China in shared value was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was prioritize student-centered policy design, followed by celebrate craftsman spirit publicly, and values Embed moral education in curricula was the lowest level.

The current situation of the current situation of the higher vocational education administration in China in systems was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was adopt performance-based budgeting systems, followed by digitalize administrative approval workflows, and formalize industry-academia cooperation mechanisms was the lowest level.

The current situation of the higher vocational education administration in China in strategy was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was build innovation and entrepreneurship ecosystems, followed by dynamically adjust programs for market needs, and develop niche specialized disciplinary clusters was the lowest level.

The current situation of the higher vocational education administration in China in structure was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was decentralize budgeting and hiring powers, followed by establish joint boards with enterprises, and optimize department roles for efficiency was the lowest level.

Part 2: To propose development guideline of higher vocational education administration in China.

Based on the research on the current development status of China's higher vocational education, the guidelines of higher vocational education administration in China covering seven aspects are proposed, which contain 70 measures. The contents are as follows:

Structure

There are 10 guidelines in structure as follows: 1) establish a multi-level management framework with clear responsibilities and authority distribution, 2) develop flexible departmental structures that adapt to evolving industry demands efficiently, 3) implement a flat organizational design to enhance communication and decision-making speed, 4) create cross-functional teams to foster collaboration between academic and administrative units, 5) define clear reporting lines to avoid ambiguity and ensure accountability at all levels, 6) integrate industry partners into the governance structure for real-world relevance alignment, 7) optimize resource allocation mechanisms to support strategic priorities effectively, 8) build scalable frameworks that accommodate future expansion and specialization needs, 9) strengthen intermediate-level management to bridge top leadership and frontline

execution, 10) regularly review and adjust structures to maintain alignment with institutional goals.

Strategy

There are 10 guidelines in strategy as follows: 1) formulate long-term visions aligned with national economic and social development goals, 2) develop dynamic strategic plans that respond swiftly to market changes and opportunities, 3) prioritize differentiation strategies to create unique institutional competitive edge and value, 4) foster innovation-driven strategies to enhance educational quality and relevance continuously, 5) implement focused strategies that target high-demand sectors and emerging industries, 6) promote internationalization strategies to broaden global perspectives and cooperation, 7) adopt data-informed decision-making processes to guide strategic adjustments accurately, 8) enhance stakeholder engagement strategies to ensure alignment and support widely, 9) leverage digital transformation strategies to modernize operations and service delivery, 10) evaluate strategic outcomes regularly to ensure objectives are met successfully.

Systems

There are 10 guidelines in systems as follows: 1) establish robust performance management systems to monitor and evaluate progress effectively, 2) implement integrated information systems to streamline data flow and enhance accessibility, 3) develop quality assurance systems that maintain high educational standards consistently, 4) create efficient student service systems to support holistic development and satisfaction, 5) install feedback mechanisms to capture insights from students, staff, and employers regularly, 6) build financial management systems that ensure transparency and sustainability over time, 7) design curriculum development systems that are responsive to industry trends promptly, 8) adopt project management systems to facilitate efficient execution of initiatives successfully, 9) strength risk management systems to identify, assess, and mitigate potential threats proactively, 10) regular system audits and updates to maintain efficiency and relevance continually.

Skill

There are 10 guidelines in skill as follows: 1) cultivate digital literacy across all administrative and academic functions comprehensively, 2) enhance leadership skills among managers to drive change and inspire teams effectively, 3) develop data analysis capabilities to support evidence-based decision-making processes accurately, 4) foster communication skills to improve coordination and stakeholder engagement significantly, 5) promote adaptive learning skills to keep pace with technological and industrial changes, 6) strengthen project management skills to ensure timely and within-budget delivery consistently, 7) encourage innovation skills to solve problems and create new opportunities creatively, 8) build intercultural competencies to operate successfully in global contexts confidently, 9) upgrade pedagogical skills for educators to enhance teaching effectiveness and student outcomes, 10) provide continuous professional development opportunities to sustain skill relevance perpetually.

Style

There are 10 guidelines in style as follows: 1) adopt collaborative leadership styles to encourage teamwork and shared ownership widely, 2) practice transparent decision-making to build trust and commitment among stakeholders, 3) embrace adaptive management approaches to navigate uncertainties and changes flexibly, 4) promote servant leadership principles to prioritize support for staff and students alike, 5) encourage participatory styles that involve employees in planning and implementation processes, 6) model inclusive behaviors to respect diverse perspectives and foster belonging genuinely, 7) demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently, 8) balance autonomy with accountability to empower teams while ensuring responsibility clearly, 9) foster a culture of continuous improvement through constructive feedback and learning, 10) lead by example to embody institutional values and expectations consistently everyday.

Staff

There are 10 guidelines in staff as follows: 1) recruit diverse talents with relevant expertise and strong alignment to institutional values, 2) offer competitive compensation packages to attract and retain high-performing professionals, 3) provide clear career pathways and development opportunities to motivate staff growth, 4) implement mentor-ship programs to facilitate knowledge transfer and support new employees, 5) encourage work-life balance to maintain high morale and reduce burnout effectively, 6) recognize and reward contributions to reinforce positive behaviors and outcomes regularly, 7) foster a supportive environment where staff feel valued, heard, and empowered daily, 8) invest in continuous training to keep skills updated with industry and educational advancements, 9) build strong teams through trust, mutual respect, and shared goals collaboration, 10) conduct regular performance reviews to provide feedback and align individual organizational objectives.

Shared value

There are 10 guidelines in shared value as follows: 1) define and communicate core values that guide behavior and decision-making universally, 2) instill a student-first philosophy to ensure all actions prioritize learner success ultimately, 3) promote integrity and ethics as non-negotiable principles in all operations consistently, 4) encourage innovation and excellence as fundamental drivers of institutional advancement, 5) foster inclusivity and respect for diversity in every aspect of institutional life actively, 6) cultivate social responsibility and commitment to sustainable development practices broadly, 7) build a sense of shared purpose and collective responsibility towards common goals, 8) emphasize collaboration over competition to strengthen internal and external partnerships, 9) celebrate achievements and milestones to reinforce pride and belonging community-wide, 10) live the values daily through actions, policies, and communications to ensure authenticity.

Part 3: To evaluate the development guideline of higher vocational education administration in China.

The suitability of development of higher vocational education administration in China was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was skills, followed by staffs, and structure was the lowest level. The feasibility of development of higher vocational education administration in China was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was skills, followed by strategy, and structure was the lowest level.

The suitability of development of higher vocational education administration in China in structure was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was define clear reporting lines to avoid ambiguity and ensure accountability at all levels, followed by regularly review and adjust structures to maintain alignment with institutional goals, and implement a flat organizational design to enhance communication and decision-making speed was the lowest level. The feasibility of development of higher vocational education administration in China in structure was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was develop flexible departmental structures that adapt to evolving industry demands efficiently, followed by integrate industry partners into the governance structure for real-world relevance alignment, and define clear reporting lines to avoid ambiguity and ensure accountability at all levels was the lowest level .

The suitability of development of higher vocational education administration in China in strategy was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was prioritize differentiation strategies to create unique institutional competitive edge and value, followed by leverage digital transformation strategies to modernize operations and service delivery, and implement focused strategies that target high-demand sectors and emerging industries was the lowest level. The feasibility of development of

higher vocational education administration in China in strategy was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was formulate long-term visions aligned with national economic and social development goals, followed by adopt data-informed decision-making processes to guide strategic adjustments accurately, and implement focused strategies that target high-demand sectors and emerging industries was the lowest level.

The suitability of development of higher vocational education administration in China in systems was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was design curriculum development systems that are responsive to industry trends promptly, followed by adopt project management systems to facilitate efficient execution of initiatives successfully, and establish robust performance management systems to monitor and evaluate progress effectively was the lowest level. The feasibility of development of higher vocational education administration in China in systems was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was strength risk management systems to identify, assess, and mitigate potential threats proactively, followed by build financial management systems that ensure transparency and sustainability over time, and design curriculum development systems that are responsive to industry trends promptly was the lowest level.

The suitability of development of higher vocational education administration in China in skill was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was provide continuous professional development opportunities to sustain skill relevance perpetually, followed by foster communication skill to improve coordination and stakeholder engagement significantly, and promote adaptive learning skill to keep pace with technological and industrial changes was the lowest level. The feasibility of development of higher vocational education administration in China in skill was at highest level. Considering the results of each aspects from highest to the lowest

mean was as follows: the highest level was promote adaptive learning skill to keep pace with technological and industrial changes, followed by upgrade pedagogical skill for educators to enhance teaching effectiveness and student outcomes, and cultivate digital literacy across all administrative and academic functions comprehensively was the lowest level.

The suitability of development of higher vocational education administration in China in Style was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently, followed by lead by example to embody institutional values and expectations consistently everyday, and balance autonomy with accountability to empower teams while ensuring responsibility clearly was the lowest level. The feasibility of development of higher vocational education administration in China in Style was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was foster a culture of continuous improvement through constructive feedback and learning, followed by embrace adaptive management approaches to navigate uncertainties and changes flexibly, and balance autonomy with accountability to empower teams while ensuring responsibility clearly was the lowest level.

The suitability of development of higher vocational education administration in China in staff was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was recognize and reward contributions to reinforce positive behaviors and outcomes regularly, followed by implement mentorship programs to facilitate knowledge transfer and support new employees, and provide clear career pathways and development opportunities to motivate staff growth was the lowest level. The feasibility of development of higher vocational education administration in China in staff was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was invest in continuous training to keep skill updated with industry and educational advancements, followed by recognize and

reward contributions to reinforce positive behaviors and outcomes regularly, and provide clear career pathways and development opportunities to motivate staff growth was the lowest level .

The suitability of development of higher vocational education administration in China in shared value was at high level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was conduct regular performance reviews to provide feedback and align individual organizational objectives, followed by foster a supportive environment where staff feel valued, heard, and empowered daily, and build strong teams through trust, mutual respect, and shared goals collaboration was the lowest level. The feasibility of development of higher vocational education administration in China in shared value was at highest level. Considering the results of each aspects from highest to the lowest mean was as follows: the highest level was conduct regular performance reviews to provide feedback and align individual organizational objectives, followed by recognize and reward contributions to reinforce positive behaviors and outcomes regularly, and offer competitive compensation packages to attract and retain high-performing professionals was the lowest level .

Discussion

The research in development of higher vocational education administration in China. The researcher summarizes the discussion into 3 parts, details as follows:

Part 1: Studying the current situation of higher vocational education administration in China.

Part 2: To propose development guideline of higher vocational education administration in China.

Part 3: Developing guideline of higher vocational education administration in China.

Part 1: Studying the current situation of higher vocational education administration in China.

Currently, the management of higher vocational education in China is at a relatively high level in seven aspects. According to the results of this study, the levels, from highest to lowest, are: skills level (highest), followed by system, and structure level (lowest). This is likely due to the following reasons: Chinese higher vocational colleges have comprehensive equipment and a sound management system. Compared with countries of similar income, their hardware and monitoring systems are already quite advanced, providing a material foundation for skills training (World Bank, 1985); the establishment of virtual simulation training bases solves the problems of expensive high-end equipment and high-risk, high-difficulty training. Through digital twin technology, students can conduct repetitive and exploratory skills training in a highly simulated environment. For example, in aviation maintenance, students find it difficult to practice repeatedly on real aircraft engines. Through virtual simulation training systems, they can wear VR devices and immerse themselves in the entire process of engine disassembly, repair, and installation, with the system providing real-time scoring and error correction. This greatly enhances the depth and breadth of skills training and is a model of modern skills training methods. Higher vocational colleges prioritize improving employment rates as a core policy. Faced with the dual pressures of a persistent shortage of skilled workers and high graduate employment rates, these institutions have a strong incentive to invest resources in practical skills training (Baker, 2018). For example, the "1+X" certificate system is the most core innovation in skills training within China's higher vocational education. It aims to cultivate students with "one specialty and multiple skills." "1" represents the academic certificate, ensuring students possess basic knowledge and cultural literacy. "X" represents several vocational skill level certificates, which students can obtain based on their career plans, developed and certified by leading industry companies (such as industrial robot operation, cloud computing maintenance, new media marketing, etc.). For instance, a student majoring in CNC technology at a higher vocational college, while obtaining their graduation certificate

("1"), may also obtain a "CNC Machine Tool Programming and Maintenance" vocational skill level certificate ("X") certified by Siemens or FANUC (renowned industrial automation companies). This directly demonstrates that the skills graduates possess are highly aligned with cutting-edge industry demands, enhancing their employment competitiveness. As of 2023, the system had issued over 400 certificates, covering millions of students, and is the most direct reflection of high skill levels. The administrative and management responsibilities of vocational education are scattered across multiple ministries and their subordinate agencies, resulting in limited horizontal collaboration, low utilization of facilities and personnel, repetitive teaching content, and lengthy approval processes, directly lowering the structural score (World Bank, 1985). Departmental barriers make it difficult for schools to simulate real work scenarios, hindering the horizontal sharing of resources between schools and enterprises. This structural fragmentation ultimately manifests as three major problems: slow decision-making, sluggish adjustments, and weak coordination (AVETRA, 2001). For example, the current "shallow" integration of industry and education is the most fundamental challenge at the structural level. Although policies strongly promote it, schools and enterprises, as two entities with different attributes, often experience structural contradictions in cooperation, such as "schools enthusiastic, enterprises indifferent" and mismatched interests. Structural contradictions in resource allocation are reflected between public and private institutions, and between different regions. Public vocational colleges typically receive more stable financial support, while private institutions face greater pressure. Vocational education resources in the eastern coastal areas are far superior to those in the central and western regions.

Structure

The current situation of the current situation of the higher vocational education administration in China in structure was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was decentralize budgeting and hiring powers, followed by Establish joint boards with enterprises, and optimize department roles for efficiency

was the lowest level. This may be due to the following: contingency theory emphasizes the adoption of a low-level, wide-scope structure when technological uncertainty is high; the core technology of higher vocational education in China is project-based training, which is non-routine (Fiedler, 1964; Lawrence & Lorsch, 1967); and the institutional mandatory mechanism-the national Double High Plan policy includes enterprise participation as a mandatory assessment indicator, requiring schools to emulate legal models (DiMaggio & Powell, 1983; MOE, 2019). Literature suggests that administrative levels and scope are mutually exclusive; reducing levels inevitably increases frontline autonomy, otherwise administrative efficiency declines (Walsh, 2015). For example, the provincial-level coordinated "Double High" plan funding and the independent recruitment of "industry professors" by institutions. This is currently the area where reforms are being implemented most deeply and effectively. The central government has significantly delegated funding and personnel authority to provincial governments and vocational colleges through major special projects, stimulating the vitality of education. The "High-Level Vocational Schools and Majors Construction Plan with Chinese Characteristics" (referred to as the "Double High Plan") provides special funds. The central government does not directly manage every penny of the funds; instead, it allocates funds to provincial governments in the form of special projects, with provincial education and finance departments coordinating management and performance evaluation. Within the framework of the approved construction plan, schools have considerable autonomy in using funds, flexibly for equipment procurement, curriculum development, or teacher training, which significantly improves budget execution efficiency and resource allocation. Many "Double High Plan" institutions have been granted green channels for independent recruitment. To attract urgently needed highly skilled talent, schools can directly recruit senior engineers or technical directors from enterprises to serve as "industry professors" or "skill masters," without having to strictly adhere to the rigid thresholds of academic qualifications and papers required for traditional public institution recruitment. This flexible personnel authority, discussed on a case-by-case basis, breaks through the bottleneck in faculty

development and is the most typical manifestation of "decentralized recruitment." In establish joint boards with enterprises part, many higher vocational colleges have set up "school-enterprise cooperation councils" or "specialty construction committees" in collaboration with enterprises. For instance, Changzhou Vocational Institute of Engineering has established a school-enterprise cooperation board with Sinopec, which jointly formulates talent training programs, develops courses, and builds practical training bases. Enterprise representatives participate in the school's major decision-making processes, yet these boards are mostly confined to advisory roles or agreement-based cooperation, rather than engaging in in-depth governance. Furthermore, the conflict between traditional administrative structures and emerging industry-education integration initiatives represents a deep-seated area of reform, touching upon inherent departmental barriers and vested interests within organizations, resulting in the slowest progress. For example, a school established an "Industry-Education Integration Office" to promote industry-education integration. However, in practice, this office experienced significant functional overlap and unclear responsibilities with traditional departments such as the Academic Affairs Office, secondary colleges, Student Affairs Office, and Finance Office. The Industry-Education Integration Office designed a new, flexible, modular curriculum based on enterprise needs, but the Academic Affairs Office needed to maintain the uniformity and stability of the school's overall teaching plan to pass the Ministry of Education's teaching evaluation, leading to the shelving or significant modification of the new curriculum plan. The Industry-Education Integration Office introduced large-scale enterprise cooperation projects at the school level, hoping that a specific secondary college would implement them. However, the secondary college might respond passively due to its heavy teaching load, insufficient faculty, or lack of incentives. The complex horizontal funding management and teacher remuneration settlement methods resulting from school-enterprise cooperation did not conform to the Finance Office's original reimbursement and auditing processes designed for vertical fiscal allocations, leading to difficulties in fund disbursement.

Strategy

The current situation of the higher vocational education administration in China in strategy was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was build innovation and entrepreneurship ecosystems, followed by dynamically adjust programs for market needs, and develop niche specialized disciplinary clusters was the lowest level. This may be due to the environmental-strategic coupling of contingency theory-regional industrial demand equals the mission environment, and institutions can only survive by anchoring their programs in local dominant industries (Hoy & Miskel, 2013). For example, a deeply integrated "dual innovation" education system and professional incubation platforms. Chinese higher vocational colleges have elevated "innovation" and "entrepreneurship" education to a core strategic level and systematically integrated them into the entire talent cultivation process, rather than as isolated activities. Many national-level "Double High Plan" institutions (such as Hangzhou Vocational and Technical College and Shenzhen Polytechnic) have generally built a four-in-one ecosystem of "curriculum-practical training-competition-incubation." This systematic construction, with full coverage, continuous integration, and resource allocation, reflects a high level of strategic layout and execution in this field. Institutional isomorphism-a mimetic mechanism-faced with the uncertainty of achieving world-class status, institutions copy the German and Swiss qualification frameworks to gain symbolic legitimacy (DiMaggio & Powell, 1983; Zhang & Campbell, 2021). An OECD report indicates that China's higher vocational education needs to respond to changes in export-oriented industries, and that curricula must evolve with supply chain technology (OECD, 2022; Hu & Nelson, 2022). When it comes to dynamically adjusting program offerings based on market demands, this practice is more closely aligned with the core function of vocational education-serving regional economic development. For instance, many vocational colleges regularly release Annual Reports on Program Development. Based on data such as employment rates, major-job matching rates, and graduate salary levels, they have established a program early-warning and adjustment mechanism, which issues red and yellow card

warnings for different programs and makes decisions on program revocation, merger, or establishment accordingly. The establishment of this mechanism has enabled vocational colleges to respond rapidly to emerging industries such as big data, artificial intelligence, and cross-border e-commerce by promptly setting up relevant program directions or curriculum modules. Currently, China's higher vocational education faces the dilemma of "homogenization" in its professional offerings and the difficulty of building distinctive clusters. This is a strategic weakness, as institutions are relatively weak in integrating resources and building irreplaceable distinctive brands around their core strengths. For example, comparing two higher vocational colleges in different regions, despite their completely different regional industrial structures and historical advantages, their professional offerings may be highly similar, both focusing on popular majors such as "Big Data Technology," "E-commerce," and "Logistics Management." Building clusters requires breaking down departmental barriers and integrating interdisciplinary teaching and research resources. This involves complex internal interest coordination, far more difficult than simply establishing a new major. Therefore, many universities would rather choose a "follow-the-leader" strategy and offer similar majors than invest long-term strategic resources to cultivate a unique and competitive academic ecosystem.

Systems

The current situation of the current situation of the higher vocational education administration in China in systems was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was adopt performance-based budgeting systems, followed by digitalize administrative approval workflows, and formalize industry-academia cooperation mechanisms. This may be due to: the contingency requirement of a technical core-the quality of practical training is unmeasurable, requiring statistical process control (SPC) to reduce variation; budgeting based on KPIs is an internal response (Xiu, J.L. 2024). For example, the performance-linked model of the "Double High Plan" special funds and "per-student funding" is a core characteristic of the current financial management system for higher vocational education in China, where

fund allocation has completely shifted from "input-oriented" to "performance-oriented." When supporting the "Double High Plan" (a plan to build high-level vocational schools and majors with Chinese characteristics), the central government does not allocate all funds at once. Instead, it adopts a closed-loop management system of "budget-execution-assessment-reward/penalty." After receiving the initial funding, schools are required to undergo rigorous performance evaluations in the mid-term and final stages. Evaluation indicators include, but are not limited to, specific achievements in student skills, industry-education integration, and social services. These evaluation results are directly linked to the amount of subsequent funding disbursement. Schools with excellent performance receive incentive funding, while those with poor performance face budget cuts or even warnings. This system precisely guides limited financial resources to the areas with the highest educational effectiveness, greatly stimulating competition and development vitality among institutions.

Institutional homogeneity: a normative mechanism-the Ministry of Education's AI + Vocational Education special fund requires the completion of smart campus infrastructure by 2022, and institutions can receive funding if they obtain ISO20000 certification (Chen & Bennett, 2024). The revised National Vocational Education Law incorporates enterprise participation as a statutory obligation, making it mandatory homogeneity; contract templates are issued uniformly by industry associations (MOE, 2022; DiMaggio & Powell, 1983). For example, most higher vocational colleges have accessed either provincial-level or self-built university-level one-stop online service halls. By integrating data from systems such as human resources, academic affairs, and finance, teachers and students can handle common services through the online platform, including scientific research project application, procurement approval, travel expense reimbursement, equipment purchase requisition, and official seal application. This has achieved process visualization and the automation of certain procedures. However, regarding the formalization of industry-university-research cooperation mechanisms, both "widespread use of framework agreements" and "fragmented depth of cooperation" coexist. Although the national level has vigorously promoted and established a certification system

(such as industry-education integration enterprises), the depth and stability of school-enterprise cooperation still lack effective mechanisms to guarantee its implementation. For example, a vocational college might have signed "school-enterprise cooperation framework agreements" with hundreds of companies. While these agreements are formalized and standardized in wording, the content of the cooperation is highly arbitrary and relies on the personal relationships between a school leader or department head and a company manager. There is a lack of a deep-seated mechanism to systematically and regularly bind the interests of enterprises (such as technological research and development, and stable customized talent training) with the interests of the school (such as curriculum development and teacher training). This could be achieved through establishing a joint entity with independent legal status or a stable financial model for profit sharing and cost-sharing. Therefore, the cooperation remains at a "formalistic and superficial" stage, making it difficult to form a sustainable and replicable paradigm of deep integration.

Skill

The current situation of the higher vocational education administration in China. in skill was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was train administrators in data analysis, followed by mandate annual industry teacher certifications, and offer digital micro-credential certification systems was the lowest level. This may be due to the following reasons: German and American literature both set more than five years of corporate experience + a PhD as the legal qualifications for vocational education teachers, and Chinese institutions are seeking to enhance their international legitimacy through imitation (Pilz & Li, 2020; Lu, B. 2022). A typical example is precision management and decision-making based on a "data cockpit." Chinese higher vocational colleges have generally regarded data analysis and evidence-based decision-making as core skills for administrative staff and have invested in systematic training and facilities. Many advanced higher vocational colleges have deployed integrated "data cockpits" or "school-level big data centers." Specially trained administrators (such as those in the academic affairs office, student

affairs office, and admissions and employment office) can monitor and analyze a range of key indicators in real time: admissions and employment, teaching processes, student behavior, etc. By analyzing this data, administrators can accurately identify which majors are "popular," which courses may have issues with teaching quality, and which student groups require additional financial or academic support. This shifts the school's major adjustments, enrollment planning, and resource allocation from "experience-driven" to "data-driven," directly reflecting a high level of skill. Furthermore, as Chinese vocational colleges seek to enhance their international legitimacy and educational quality by emulating the high standards for teachers' corporate work experience set by vocational education powerhouses such as Germany and the United States, the Ministry of Education has also explicitly specified the required proportion of "double-qualified" teachers in official documents. Virtually all colleges have incorporated two requirements as rigid criteria for teachers' professional title evaluation and performance assessment: first, teachers must engage in regular corporate internships (e.g., accumulating no less than six months of practical experience every five years); second, teachers must obtain relevant vocational qualification certificates or skill level certificates. For instance, teachers specializing in new energy vehicle technology are required to hold credentials such as the Senior Technician Certificate in New Energy Vehicle Maintenance. Many institutions mandate that professional teachers first acquire the qualification of trainers or assessors for the "1+X" Certificate System (integrating academic certificates with a range of vocational skill level certificates) in their respective teaching fields, so as to ensure that teaching content keeps pace with industry standards. For some cutting-edge majors (e.g., intelligent manufacturing, industrial internet), colleges have actively introduced technical certification systems from internationally renowned enterprises such as Germany's HWK, Siemens and ABB, and organized teachers to participate in related training programs and assessments, aiming to align with international standards. Contingency Perspective: The technology update cycle for training equipment is less than 18 months, making traditional laboratories inadequate. Virtual simulation reduces technological uncertainty (Jolie & Sherman,

2016). Walsh points out that low administrative efficiency stems from a lack of quantitative tools. Contingency theory considers data capabilities a necessary structural variable for adapting to non-routine technologies (Walsh, 2015). A small number of leading institutions (such as Jinhua Polytechnic) have collaborated with top-tier enterprises (including Huawei and Tencent Cloud) or online education platforms (e.g., XuetangX). They deliver part of the training and assessment content for the "1+X" certificate system in the form of online micro-courses, providing students with online micro-modules for specific skills as well as corresponding Digital Badges. Upon completion, students can obtain electronic certificates, which have taken shape as the rudiment of micro-credentials. However, the vast majority of institutions have not yet established a university-level, systematic digital micro-credential certification system widely recognized by the industry. Key issues such as the credit recognition of micro-credentials, their integration with academic education, and their credibility in the job market are still in the exploratory stage.

Style

The current situation of the higher vocational education administration in China in Style was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was foster agile and adaptive leadership, followed by reward team-based achievements primarily, and practice servant leadership model was the lowest level. This is due to: The contingency LPC model states that the higher vocational education task environment is moderately favorable, and relationship-oriented leadership is most effective in enhancing teacher commitment and curriculum innovation (Fiedler, 1964). For example, university-level and middle-level leaders of higher vocational colleges generally demonstrate the ability to quickly interpret and implement national new policies (such as integration of industry and education, digital transformation, and integration of posts, courses, competitions and certificates). In response to regional industrial upgrading (e.g., the shift from traditional manufacturing to intelligent manufacturing), they can promptly adjust the school's development strategies, set up new professional directions or revamp existing ones. When

promoting major reforms (such as the construction of the Double High-Level Plan and the application for national-level teaching innovation teams), many colleges break rigid bureaucracy to establish cross-departmental special task forces or project teams, endowing the person-in-charge with substantial decision-making autonomy to accelerate the pace of decision-making and implementation. In curriculum development and teaching reform, the iterative model of pilot implementation, evaluation and promotion is increasingly adopted in place of one-off, rigid plans. The leadership encourages the approach of small steps, quick iteration and tolerates trial and error, so as to adapt to the ever-evolving technological and industrial demands. Institutional homogeneity and normativity-the National Conference of Higher Vocational School Presidents' Quality Annual Report template lists team performance as an observation indicator, forcing schools to converge (National Conference of Higher Vocational School Presidents, 2021; DiMaggio & Powell, 1983). In the internal performance appraisal and distribution schemes of vocational colleges, the achievements of national and provincial Teaching Innovation Teams, teams winning awards in Teachers' Teaching Competence Competitions, and teams undertaking major horizontal technical service projects are assigned extremely high weightage, and the teams as a whole are granted substantial rewards. Personal merit evaluations and professional title promotions are also strongly linked to the achievements of the teams they belong to. The core resources of the colleges (such as funding, equipment and staffing quotas) are increasingly allocated to team-based projects including the development of high-level professional clusters, the construction of high-quality open online courses and the building of industry-education integration platforms, rather than being evenly distributed among individuals or academic departments. Concepts akin to servant leadership, such as "putting teachers and students at the core" and "administration as service", are widely mentioned in presidents' speeches and university cultural development plans. Yet in practical power structures, resource allocation and daily decision-making processes, the traditional model characterized by administrative dominance and clear hierarchical stratification remains deeply entrenched. The "services" provided by school leaders

to teachers and students are mostly reflected in improving logistics support (e.g., canteens and dormitories) and optimizing administrative procedures (e.g., one-stop service centers). By contrast, there is little practice in the core dimensions of servant leadership-empowering teachers and students, sharing leadership authority, and prioritizing the development of subordinates. The relatively high power distance in Chinese organizational culture makes leaders more inclined to act as "decision-makers" and "directors" rather than "listeners", "enablers" and "servants". Teachers and administrative staff are also accustomed to following instructions rather than participating in collaborative governance.

Staff

The current situation of the higher vocational education administration in China in staff was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was recruit industry experts and PhDs, followed by create mentorship programs for teachers, and establish dual-career ladder systems was the lowest level. This is due to: On the one hand, it is rapidly replenishing its cutting-edge technical expertise by recruiting industry experts and part-time engineers with doctoral degrees worldwide. On the other hand, it is establishing a performance-based compensation package, a dual-track career ladder, a mentoring system with mentors, and a tiered training path. This ensures that new faculty members receive mentorship, a clear career path, and continuous empowerment from the moment they join the university. This fosters a virtuous cycle of attracting, retaining, and rapidly developing talent, creating a diverse faculty ecosystem with both academic depth and practical depth. In the past, higher vocational colleges mainly recruited fresh master' s graduates, who often lack practical operational skills and thus tend to feel inadequate when it comes to cultivating students' technical competencies. By shifting their faculty recruitment focus to vigorously introducing industry technical experts directly from enterprises-those with over five years of frontline work experience and holding professional titles such as Senior Engineer or Chief Technician-colleges can effectively enhance the academic and technical cutting-edge capacity of their teaching staff. In addition,

some high-level vocational colleges (e.g., Shenzhen Polytechnic, Tianjin Vocational University) have established special funds to hire engineers from overseas enterprises (such as Germany's Siemens and Switzerland's ABB) and doctoral holders from world-renowned universities of applied sciences to teach on a part-time basis through flexible employment approaches, including chair professors, industrial mentors, and visiting scholars, thereby directly aligning their standards with international benchmarks. The vast majority of higher vocational colleges have established a mentorship system for new faculty members. For the large number of new teachers with doctoral or master's degrees who move directly from "campus to campus", assigning an experienced "double-qualified" key teacher as their mentor serves as the most important channel to help them quickly master vocational education teaching methods and familiarize themselves with industry practices. It also acts as a bridge for the internal dissemination of the experience of recruited "industry experts". Meanwhile, it helps new teachers integrate into the school culture rapidly, understand the unique laws of vocational education, reduce confusion and turnover during the adaptation period, and enhance the stability of the teaching staff. Switzerland and Australia have legalized the practice of corporate engineers teaching part-time, and Chinese institutions are replicating this model to obtain international program qualifications (Pilz & Li, 2020).

Contingency organizational design: When there are diverse technical pathways and high promotion demands, a dual professional/management track should be established to reduce talent loss (Lawrence & Lorsch, 1967). Nevertheless, there remain numerous issues in establishing the dual-track faculty career ladder system. Some provinces (e.g., Guangdong and Jiangsu) have piloted an independent professional title evaluation system for teachers in higher vocational colleges at the provincial level. They have increased the weight of practical skills, technical services and teaching reform achievements in the evaluation criteria, attempting to distinguish it from the academic-oriented title evaluation system of regular institutions of higher education. Yet this is still merely an adjustment of standards within the single "teaching-research" track. In essence, the vast majority of higher vocational colleges have not

established a truly parallel, equivalent and convertible professional and technical track and administrative management track. Teachers' career development still remains highly dependent on whether they hold administrative positions—a phenomenon that echoes the traditional notion of "those excelling in studies will enter officialdom". Teachers who excel in teaching and technical work often find themselves at a disadvantage in terms of resource access, remuneration packages and discourse power without administrative positions, leading to a one-way flow of talent toward management roles or even talent drain.

Shared value

The current situation of the higher vocational education administration in China in shared value was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was prioritize student-centered policy design, followed by celebrate craftsman spirit publicly, and values Embed moral education in curricula was the lowest level. This is due to the fact that the national Implementation Plan for Vocational Education Reform establishes cultivating morality and cultivating people, cultivating both morality and skill as a mandatory value discourse, requiring institutions to declare this in their charters to gain legitimacy (MOE, 2019 (mandatory isomorphism)). Reforms aimed at enhancing flexibility in enrollment and training include the implementation of classified enrollment and diversified admission mechanisms, along with the widespread adoption of training models such as the modern apprenticeship system, order-based classes, and work-study alternation. These measures are designed to cater to the learning needs, interests, and career development paths of different student groups, rather than prioritizing the convenience of institutional teaching and management. Meanwhile, the precise allocation of teaching resources and services is realized by identifying students with academic difficulties, financial hardships, or psychological troubles through big data analytics (such as the aforementioned "data cockpit"). Corresponding supporting programs are implemented, including academic early warning and support systems, targeted financial assistance, and one-stop student community services. The logic of resource

allocation has shifted from egalitarianism to distribution based on actual needs. Additionally, the clear orientation toward curricula and learning outcomes is reflected in the comprehensive promotion of the credit system reform and the pilot "1+X" certificate system. These initiatives allow students to independently select courses and adjust their learning progress within a certain scope, and enable learning achievements-such as skill certificates, competition awards, and innovation and entrepreneurship outcomes-to be recognized for academic credits, thereby endowing students with greater autonomy in learning and a stronger voice in outcome evaluation. Contingency Explanation: When institutional resources are scarce and evaluation indicators prioritize research publications, some faculty members revert to an academic orientation to align with their specific work environment, creating a tension in values (Walsh, 2015; Chalos & Cherian, 2015).

Part 2: To propose development guideline of higher vocational education administration in China.

Structure

According to the data analysis, the lowest average value in structure is optimize department roles for efficiency, which should use develop flexible departmental structures that adapt to evolving industry demands efficiently to solve. This is due to establish a flexible and adaptable departmental structure, breaking away from the traditional rigid setup, departments, research institutes, and functional offices can quickly reorganize or add or remove functional modules based on industry technological evolution and market demand. It embeds efficiency into the structure itself: when new technologies emerge, interdisciplinary teaching centers can be established or outdated teaching and research departments can be eliminated immediately, avoiding overstaffing. Create cross-functional teams and Strengthen intermediate-level management complement each other: a flexible structure provides a plug-and-play platform for cross-functional teams, while middle-level managers assume horizontal coordination roles within a dynamic structure, ensuring the shortest possible decision-making and execution chain. Furthermore, operational

metrics can be quantifiably improved: a flexible structure reduces redundant positions and communication costs. Furthermore, freed-up resources are allocated to high-priority areas through the seventh point of Optimize resource allocation, achieving simultaneous optimization of the three dimensions of structure, resources, and strategy.

Strategy

According to the data analysis, the lowest average value in strategy is develop niche specialized disciplinary clusters, which should use implement focused strategies that target high-demand sectors and emerging industries to solve. This is due to a focused strategy targets high-demand and emerging industries, providing clear tracks, resources, and policy support for building irreplaceable specialized discipline clusters. Focus fosters depth: Concentrating faculty, equipment, and research funding on a few cutting-edge areas (such as intelligent manufacturing, hydrogen energy equipment, and digital twins) facilitates the formation of technological strengths within a single location, achieving a specialized, sophisticated, and innovative approach. Aligning with market pain points: High-demand and emerging industries often face skill gaps. A focused strategy can quickly transform these industrial and technological challenges into discipline development tasks, forming distinctive clusters aligned along the demand-curriculum-research-service line. In tandem with a differentiation strategy: Prioritize differentiation emphasizes unique value, while focusing provides a path to achieve this—first targeting a niche area, then building an inimitable discipline ecosystem through sustained investment and industry-university integration. A comprehensive evaluation and feedback mechanism: In conjunction with the Evaluate strategic outcomes strategy, a focused strategy can be regularly tested using specific indicators such as industry contribution, patent conversion rate, and graduate salaries to ensure that the discipline cluster remains at the forefront of high demand.

Systems

According to the data analysis, the lowest average value in systems is formalize industry-academia cooperation mechanisms, which should use design

curriculum development systems that are responsive to industry trends promptly to solve. This is due to the institutionalized, traceable curriculum development system, which integrates enterprises into the entire process of talent development program design, implementation, and evaluation. This transforms collaboration from a verbal agreement into a formalized, documented, and auditable mechanism. Solidified processes equal formalized mechanisms: The system integrates four key milestones: Industry needs research → Enterprise expert participation in curriculum review → Joint development of teaching resources → Joint establishment of evaluation standards. Each step requires online documentation and electronic signatures, creating a legally binding collaboration record. Linked to quality assurance: Quality assurance systems leverage curriculum system data to set enterprise satisfaction and graduate skills match as quality KPIs, effectively constraining enterprises' continued investment and avoiding one-time participation. Linked to a closed-loop feedback loop: Feedback mechanisms automatically feed feedback from enterprises, students, and teachers back into the curriculum system, enabling annual rolling revisions and ensuring that collaborative content evolves in tandem with industry technology. Supporting differentiation and focused strategies: In conjunction with focused strategies, the curriculum system can designate micro-majors or module stacks for high-demand niche industries, providing enterprises with tailored talent pipelines and strengthening partnerships.

Skill

According to the data analysis, the lowest average value in skill is offer digital micro-credential certification systems, which should use cultivate digital literacy across all administrative and academic functions comprehensively to solve. This is due to digital micro-credentials rely on platform operations, data standards, and blockchain-based evidence storage, requiring faculty, academic affairs, and administrative staff to possess comprehensive digital capabilities, from granular course design to platform operations and maintenance. Article 1, Comprehensive Digital Literacy Cultivation, provides system users and maintainers with a common technical language and operational skills, ensuring smooth operation of all micro-

credential processes within the school, from development, launch, verification, and international recognition. This perfectly aligns with the technical foundation required to provide a digital micro-authentication system.

Style

According to the data analysis, the lowest average value in style is practice servant leadership model, which should use promote servant leadership principles to prioritize support for staff and students alike to solve. This is due to this policy explicitly incorporates the servant leadership principle into the action list and defines its core task as prioritizing support for faculty, staff, and students. This directly corresponds to the leader as servant concept of the Practice servant leadership model. It requires management to delegate authority, remove obstacles to teaching and research, and provide resources and platforms for faculty professional growth and student skill improvement. This fully aligns with the servant leadership principle of serving first, leading later, making it the most direct and appropriate solution.

Staff

According to the data analysis, the lowest average value in staff is establish dual-career ladder systems, which should use provide clear career pathways and development opportunities to motivate staff growth to solve. This is due to the policy directly addresses the need to establish clear career development pathways to motivate employee growth, which aligns perfectly with the dual-track teaching-technology promotion path mandated by the Establish Dual Career Ladder Systems policy. By publicly and quantifying the promotion standards, competency requirements, and salary ladders for both streams (teaching and research, and engineering and technology), employees can choose their own path based on their expertise, avoiding a single, paper-focused path. This formalizes the dual-track system and seamlessly integrates it with compensation, training, and performance management systems.

Shared value

According to the data analysis, the lowest average value in shared value is values Embed moral education in curricula, which should use define and

communicate core values that guide behavior and decision-making universally to solve. This is due the requirement to define and disseminate core values guiding the behavior and decision-making of all teachers and students provides a top-level value benchmark for embedding moral education into the curriculum. Only by first clarifying core values such as integrity, responsibility, craftsmanship, and patriotism and making them the universal design principles of all school policies, syllabi, and classroom activities can teachers effectively integrate ideological and political case studies and professional ethics discussions into professional courses and practical training, achieving a comprehensive, full-staff, and all-round education. This is the most consistent approach to values embedded moral education in curriculum.

Part 3: To evaluate the development guideline of higher vocational education administration in China.

The suitability research reveals that this governance paradigm with built-in resilience not only enables institutions to remain robust despite the triple impacts of technological trends, policy trends, and scale expansion, but also fosters a self-evolving resilient culture within the organization. First, modular governance and cloud-based subscriptions minimize the cost of trial and error. New colleges or programs can be integrated into the existing platform as virtual colleges first, then implemented as physical units after successful enrollment, curriculum, and faculty data verification, thus avoiding large-scale infrastructure and personnel redundancy. Second, a dual-track faculty pool and a revolving door mechanism synchronize the rate of knowledge update with the half-life of industrial technology: corporate mentors must return to the front lines of industry every three years to refresh their skill, while on-campus researchers accumulate the latest case studies through corporate research sabbaticals, ensuring that classroom content remains a step ahead of the market. Third, participatory decision-making is further amplified by the data platform. Any faculty member or student can initiate a vote on course revisions through the Demands and Feedback dashboard. Once the support rate exceeds a threshold, the teaching committee will be triggered for rapid review, truly achieving

bottom-up innovation filtering. More importantly, student-centeredness has evolved from a cultural slogan into quantifiable, observable indicators. Tuition return, starting salary, and three-year career trajectory are now incorporated into the board's performance matrix in real time. If performance falls below a preset benchmark, the system automatically triggers resource reallocation and instructional interventions, forming a closed loop of results-responsibility-improvement. As a result, institutions are no longer education factories that passively respond to external changes, but have evolved into learning organizations capable of perception, decision-making, and correction. Their governance, teaching, and resource allocation capabilities can be continuously upgraded without increasing structural costs, providing a replicable and scalable model for the resilient development of Chinese higher vocational education in an uncertain era.

The feasibility analysis reveals that China's higher vocational education governance reform has reached a window of opportunity: external impetus, internal capacity, and risk control. On the one hand, national digital funding and a surging talent gap create a dual-engine policy and market drive, giving institutions irreplaceable legitimacy in both financial and talent demands. On the other hand, budget reallocation can leverage cloud ERP, QA systems, and cross-disciplinary teams, demonstrating that the reform is not a burn of incremental capital but rather a transformation of existing resources, significantly reducing financial resistance. More importantly, the reform prioritizes the people variable. The institutions' aggressive recruitment of high-end talent and employee engagement have transformed flat and service-oriented leadership from top-down slogans into living data that can be monitored and corrected in real time using RACI matrices and agile PMOs. Combined with tiered digital literacy and a revolving door of industry mentors, technophobia and territorial aversion are being continuously mitigated. Therefore, this approach can not only deliver quick-win results in a short period of time, such as 30% faster decision-making, 15% increase in student satisfaction, and 20% increase in employment in emerging industries, but more importantly, it implants the resilience genes of self-feedback, self-financing, and self-renewal within the organization, thus

reserving a replicable Chinese higher vocational education paradigm for future responses to shortened technology half-life, sudden changes in policy direction, or fiscal fluctuations.

Recommendations

Implications

The research results showed that the recommendations about guidelines for development of higher vocational education administration in China are as follows:

1. Structure: universities should reshape the roles of departments and colleges around the core concept of end-to-end process owner: shorten the decision-making radius by reverse engineering the industry value chain; use the RACI chart to refine the role responsibilities of key tasks; and establish a process optimization fund to provide rewards, thereby optimizing departmental responsibilities and improving efficiency.

2. Strategy: leveraging a two-dimensional positioning approach based on regional industry map + university DNA, we will develop distinctive discipline clusters. Through a business-run college + industry-employed professors model, we will embed real business practices into the entire training process. Furthermore, we will establish a dynamic evaluation and exit mechanism, creating a virtuous cycle and achieving breakthroughs.

3. Systems: the state should incorporate industry and enterprise participation in vocational education into local education laws and regulations, and clarify the responsibilities of different entities; at the same time, establish a special industry professor setting and professional title sequence within colleges and universities; attract enterprises to participate in education through financial subsidies and other means, and achieve seamless connection between talent training and industry needs.

4. Skill: led by the Ministry of Education, with participation from vocational schools, leading enterprises, and platform technology companies, and with government subsidies, this initiative aims to establish a nationwide micro-credential

system for vocational education. This system will serve as a key enabler for promoting the lifelong, digital, and international development of vocational education in China.

5. Style: the Ministry of Education has selected a number of universities participating in the National Double High-Level Plan to pilot servant leadership reforms; established a service record system for leading cadres in vocational colleges; and the National Vocational Education Teacher Teaching Innovation Team will develop relevant courses to make this a necessary skill for university administrators.

6. Staff: the Ministry of Human Resources and Social Security and the Ministry of Education jointly issued the National Vocational College Dual-Track Promotion Standards. This system simultaneously establishes a dual-level system within institutions: a teaching and research track and an industry skill track. This dual-tier system truly guides China's vocational education artisan teachers from the narrow academic path to the expressway of industry-education integration.

7. Shared value: when the Ministry of Education updated the Vocational Education Professional Teaching Standards, it mandated a Moral Education Credit module, accounting for 10% of graduation credits. It also incorporated the four core values of Integrity, Craftsmanship, Green Development, and Labor into the training requirements, achieving the simultaneous appreciation of values and skill. This truly transforms cultivating morality and educating people from a marginal slogan into a core principle of Chinese vocational education classrooms.

Future Researches

1. In China's higher vocational education research, data silos and a lack of credibility have become major bottlenecks hindering academic progress. This lack of data credibility further exacerbates research risks. This has led vocational education research into a low-level equilibrium trap, characterized by a broken evidence chain and ambiguous policy recommendations.

2. Evaluation metrics that prioritize research papers over technology have distorted research topic selection, leading to a superficial boom in vocational education research and a surge in the number of papers, but failing to answer core

questions. This ultimately undermines the actual contribution of higher vocational education research to industrial transformation.

3. The fragmentation of school-enterprise contracts hinders longitudinal tracking, making it difficult for policymakers to judge the actual situation of reforms. It is also likely to affect the continuity of research samples, making it impossible to conduct longitudinal comparisons, causing vocational education research to fall into a low-level cycle, and hindering the accumulation of in-depth data-driven academic results oriented to industry needs.

4. The increasing lack of an international comparative dimension in comparative research on higher vocational education in China has become a significant source of theoretical deficits and hollow policy recommendations. Comparative research has become mere empty talk, failing to uncover the cultural, fiscal, and governance logic underlying institutional differences or address the real pain points of the industry-education imbalance. Ultimately, this undermines the practical value of international experience for China's vocational education reform.

5. In empirical research on higher vocational education in China, the blurred lines between research ethics and law are becoming a hidden danger, easily derailing field research and experimental projects. Due to the privacy and confidentiality of various data, researchers are forced to turn to questionnaires, which offer lower risk but limited value, further weakening the depth of vocational education research in real-world production and educational contexts.

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Appendices

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

List of Specialists for IOC Verification

Associate Researcher. Dr. Zong Cheng

Degree	Doctor of Education
Position	Institute of Vocational and Continuing Education, Chinese Academy of Educational Sciences

Professor. Dr. He Xian

Degree	Doctor of Education
Position	Vocational education colleges, Tianjin University of Technology and Education

Professor. Dr. Cao Ye

Degree	Doctor of Education
Position	Director of the Institute of Vocational and Technical Education, Shanghai Normal University

Professor. Dr. Zhuang Xizhen

Degree	Doctor of Education
Position	Faculty of Education, Yunnan Normal University

Professor. Dr. Li Peng

Degree	Doctor of Education
Position	Vice Dean of the School of Education, Jiangsu Normal University

Appendix B
Official Letter



Ref.No. MHESI 0643.14/ 315

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Request for Data Collection

Dear Sir or Madam

Miss Jiang Jun is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Development Of Higher Vocational Education Administration In China"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research. List of universities and colleges according to the attached document.

With your expertise, we would like to request to collect the data to be used in the research. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

Assistant Professor Dr. Thanaput Chanchaen
(Vice Dean of Graduate School for Dean of Graduate School)

Bansomdejchaopraya Rajabhat University

Tel.+662-473-7000

www.bsru.ac.th

E-mail: grad@bsru.ac.th

No	University and College
1.	Beijing Normal University
2.	East China Normal University
3.	Southwest University
4.	Central China Normal University
5.	Peking University
6.	Tsinghua University
7.	Fudan University
8.	Zhejiang University
9.	Xiamen University
10.	Guangxi University

Sincerely,



Assistant Professor Dr. Thanaput Chanchaen
(Vice Dean of Graduate School for Dean of Graduate School)



Ref.No. MHESI0643.14/ 376

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Request for Interview

Dear Sir or Madam

Miss Jiang Jun is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Development Of Higher Vocational Education Administration In China"

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Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000
www.bsru.ac.th
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No	Experts
1.	Beijing Normal University
2.	East China Normal University
3.	Southwest University
4.	Central China Normal University
5.	Peking University
6.	Tsinghua University
7.	Fudan University
8.	Zhejiang University
9.	Xiamen University
10.	Guangxi University

Sincerely,



Assistant Professor Dr. Thanaput Chancharoen
(Vice Dean of Graduate School for Dean of Graduate School)



Ref.No. MHESI 0643.14/ 314

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Wen Dongmao, Peking University

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RefNo. MHESI0643.14/ 313

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Chen Peng, Central China Normal University

Miss Jiang Jun is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Development Of Higher Vocational Education Administration In China"

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Ref.No. MHESI 0643.14/ 312

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Guo Yuanjiang, Central China Normal University

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RefNo. MHESI0643.14/ 311

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Thonburi Bangkok 10600

21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Xu Hui, Southwest University

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Ref.No. MHESI 0643.14/ 310

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21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Tang Zhijun, Southwest University

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Ref.No. MHESI 0643.14/ 309

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21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Xu Guoqing, East China Normal University

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RE: Invitation to evaluate the model

Dear Professor Dr. Shi Weiping, East China Normal University

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21 October 2025

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21 October 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Li Peng, Jiangsu Normal University

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Thonburi Bangkok 10600

21 October 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Zhuang Xizhen, Yunnan Normal University

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Ref.No. MHESI 0643.14/3๐๓

Bansomdejchaopraya Rajabhat University
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21 October 2025

RE: Invitation to validate research instrument

Dear Professor Dr. He Xian, Tianjin University of Technology and Education

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Ref.No. MHESI 0643.14/ 302

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21 October 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Cao Ye, Shanghai Normal University

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Ref.No. MHESI 0643.14/ 301

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Zong Cheng, Institute of Vocational and Adult Education, Chinese Academy of Educational Sciences

Miss Jiang Jun is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Development Of Higher Vocational Education Administration In China"

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RE: Invitation to evaluate the model

Dear Professor Dr. Jiang Duanhong, Peking University

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Ref.No. MHESI 0643.14/ 249

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1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Li Yue, Tsinghua University

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Ref.No. MHESI0643.14/ 298

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

21 October 2025

RE: Invitation to evaluate the model

Dear Professor Dr. Wang Xi, Tsinghua University

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21 October 2025

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Ref.No. MHESI0643.14/ 296

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21 October 2025

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Dear Professor Dr. Zhang Min, Fudan University

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21 October 2025

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RE: Invitation to evaluate the model

Dear Professor Dr. Wang Guicheng, Guangxi University

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Appendix C

Research Instrument

Questionnaire

DEVELOPMENT OF HIGHER VOCATIONAL EDUCATION ADMINISTRATION IN CHINA

Explanation

1. This questionnaire is about development of higher vocational education administration in China. The objectives of this research were 1). To study the current situation of higher vocational education administration in China. 2). To propose development guideline of higher vocational education administration in China. 3). To evaluate the development guideline of higher vocational education administration in China. The develop guideline of higher vocational education administration in China.

2. The questionnaire about development of higher vocational education administration in China, which provided into two parts. Part one is personal information of respondents and part two is survey about the current situation of development of higher vocational education administration in China, total 40 questions.

3. Please tick √ in the columns that represent your opinion about development of higher vocational education administration in China

Thank you

Mrs. Jiang Jun

A doctoral student in Educational administration program

Bansomdejchaopraya Rajabhat University

Part 1: Personal Information of respondents

- Gender ☐ Male ☐ Female
- Education Background ☐ Bachelor's degree ☐ Master's degree
☐ doctor's degree

Part 2: Survey about the current situation of development of higher vocational education administration in China.

5 express the level of development of higher vocational education administration in China were at Very much in line level

4 express the level of development of higher vocational education administration in China were at More in line level

3 express the level of development of higher vocational education administration in China were at Basically level

2 express the level of development of higher vocational education administration in China were at Not quite level

1 express the level of development of higher vocational education administration in China were at Very inconsistent level

NO.	The development of higher vocational education administration in China.	Lever of the development of higher vocational education administration in China.				
		Very much in line	More in line	Basically	Not quite	Very inconsistent
		5	4	3	2	1
Structure						
1	Flatten organizational hierarchy for agility.					
2	Create cross-functional industry collaboration committees.					
3	Decentralize budgeting and hiring powers.					
4	Establish joint boards with enterprises.					
5	Develop integrated digital management platforms.					
6	Optimize department roles for efficiency.					
Strategy						
7	Align with national Double High Plan.					
8	Dynamically adjust programs for market needs.					
9	1Develop niche specialized disciplinary clusters.					
10	Build innovation and entrepreneurship ecosystems.					
11	Pursue international program accreditation.					
12	Implement digital transformation strategies.					

NO.	The development of higher vocational education administration in China.	Lever of the development of higher vocational education administration in China.				
		Very much in line	More in line	Basically	Not quite	Very inconsistent
		5	4	3	2	1
Systems						
13	Implement total quality management systems.					
14	Digitalize administrative approval workflows.					
15	Adopt performance-based budgeting systems.					
16	Establish data-driven KPI monitoring.					
17	Create transparent faculty promotion systems.					
18	Formalize industry-academia cooperation mechanisms.					
skill						
19	Mandate annual industry teacher certifications.					
20	Build simulation and VR training labs.					
21	Integrate cross-disciplinary skill modules.					
22	Offer digital micro-credential certification systems.					
23	Organize national skill competitions annually.					
24	Train administrators in data analysis.					

NO.	The development of higher vocational education administration in China.	Lever of the development of higher vocational education administration in China.				
		Very much in line	More in line	Basically	Not quite	Very inconsistent
		5	4	3	2	1
Style						
25	Practice servant leadership model.					
26	Encourage participatory decision-making processes.					
27	Foster agile and adaptive leadership.					
28	Implement open-door communication policies.					
29	Model lifelong learning behaviors.					
30	Reward team-based achievements primarily.					
staff						
31	Recruit industry experts and PhDs.					
32	Provide performance-based compensation packages.					
33	Hire part-time industry engineers.					
34	Establish dual-career ladder systems.					
35	Create mentorship programs for teachers.					
36	Offer tiered professional development pathways.					
Shared value						
37	Values Embed moral education in curricula.					
38	Celebrate craftsman spirit publicly.					

NO.	The development of higher vocational education administration in China.	Lever of the development of higher vocational education administration in China.				
		Very much in line	More in line	Basically	Not quite	Very inconsistent
		5	4	3	2	1
39	Prioritize student-centered policy design.					
40	Build strong institutional identity pride.					

This is the end of the questionnaire. Thank you again for your participation and wish you all the best!

Interview Form

Structured Interview

DEVELOPMENT OF HIGHER VOCATIONAL EDUCATION ADMINISTRATION IN CHINA

This questionnaire is divided into two parts:

Part 1 : Personal Information

Part 2 : The current situation of development of higher vocational education administration in China.

Part 1 : Personal Information

Interviewer..... Interview Date.....

Interview Time.....

Interviewee.....Gender.....

Age..... years old.....

Education

background.....Position.....

Work place.....

Part 2 : The current situation of development of higher vocational education administration in China

Instruction: Please provide your opinion on the following statement

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote structure of the educational administration?

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2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

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3.What about the current situation of the educational administration in systems and how to promote the systems of the educational administration?

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4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

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5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

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6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

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7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

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Interviewee 1

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Currently, higher vocational colleges still rely on a vertical hierarchy of school-college-department, with an average approval cycle of over three months. A three-tiered framework should be established: strategy-operations-execution. Sharing centers for personnel, finance, and quality should be established horizontally. Using RACI charts, single responsible individuals should be identified, and process owners should be empowered to coordinate across departments. This would shorten the decision-making cycle by 50%.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Current strategies for higher vocational education remain at the level of upward and downward communication, with only a simple alignment between the national Double High Plan and local industrial planning. A linkage model should be established, integrating industry demand-professional setting-resource allocation, with rolling revisions every six months. This strategy should be broken down into quantifiable KPIs and firmly linked to budgets and performance, ensuring it is no longer just a chart on the wall.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Currently, performance indicators for higher vocational education are numerous and fragmented, focusing more on input than output. A performance management system should be established with core KPIs such as graduate employment quality, company satisfaction, and technical services. Data should be captured in real time and linked to departmental budgets to achieve precise incentives based on output, benefit, thus driving improvements in teaching quality.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Current digital tool use by higher vocational administrators is still limited to OA (Open Office for Business) sending and receiving, lacking a data-driven mindset. Python basics and visualization tools should be made compulsory courses for mid-level managers, with promotional benefits linked to them. At the same time, school-based data cockpits should be developed to allow managers to analyze enrollment and employment data by dragging and dropping data, fostering a data-driven approach.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Currently, higher vocational schools are still accustomed to upward and downward communication, resulting in insufficient coordination. It is recommended that school leaders hold monthly roundtable co-creation days to bring issues such as program adjustments and budget allocations to cross-departmental teams for on-site consensus. Progress should be shared online using OKRs to foster a sense of collective ownership.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Currently, administrative personnel in higher vocational colleges are drawn from a single source and lack industry background. He suggests adding a corporate work experience weight to recruitment, giving extra points to those with more than five years of industry experience and holding a doctorate or senior professional title, and establishing a special industry professor position to ensure the recruitment and retention of diverse talent.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Most colleges and universities' values are expressed in a repetitive and superficial manner. Values co-creation workshops should be organized among schools, enterprises, and students to identify 4-6 actionable behavioral keywords. These keywords should be incorporated into recruitment, assessment, and performance evaluation criteria, and a report on their implementation should be published every academic year to transform abstract slogans into concrete actions.

Interviewee 2

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

The expansion of industrial academies has left traditional functional departments and offices lagging behind. It is recommended that business divisions be established based on the industry chain, with each industrial academy representing a profit center. Budgeting and budgeting should be adjusted dynamically based on industry prosperity, achieving a change in industry demand – organizational structure adjustment within 30 days.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

The difficulty in implementing strategies stems from the ambiguity of mid-level goals. He suggested adopting a strategy map + balanced scorecard approach, translating the vision into four-dimensional indicators: finance, customers, processes, and learning. This approach should be implemented at the college, program, and faculty levels, achieving a single-picture, bottom-up approach, ensuring everyone can see the strategy and achieve the goals.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Information silos remain a common problem. It is recommended to adopt a cloud-native SaaS architecture, unify identity authentication and API interfaces, and integrate academic, financial, employment, and research data to achieve single sign-on and full-chain analysis. This will provide decision-makers with a real-time, trusted data cockpit, truly enabling data to flow and be used.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Leadership skill often focus on control over empowerment. He suggests introducing coaching leadership workshops, using role-playing and action learning to train deans to use questions instead of commands. He also suggests establishing Student Innovation Centers to allow leaders to co-create projects with teachers and student.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Lack of transparency in decision-making can easily breed suspicion. An online school affairs open dashboard could be launched to publish real-time information on the progress of major projects, funding usage, and personnel appointments and dismissals. An anonymous question function could be added, and response rates could be factored into cadre performance evaluations to enhance trust through transparent operations.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Salary inversion leads to the loss of key personnel. Performance bonuses should be increased to 40% of annual salary. Market pricing should be implemented

for in-demand professional management positions, based on regional industry salary surveys. Housing subsidies and children's education allowances should also be provided to enhance attractiveness and retention.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Student-centeredness often becomes a slogan. It is recommended to establish a student learning experience dashboard to collect real-time data on course satisfaction, starting salary, and skill growth. If data falls below the benchmark, it will trigger teaching adjustments. Student board seats should also be established to allow learners to truly participate in governance decisions.

Interviewee 3

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Redundancy in mid-level positions is the biggest obstacle to flattening. Deputy directors could be reassigned to industrial project managers, retaining their rank and benefits, with performance tied to project returns. This would both reduce layers and stabilize employee morale, achieving the goal of reducing levels without reducing staff, improving efficiency, and providing incentives.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

The traditional five-year integrated system cannot cope with the shortening half-life of technology. A flexible 2+2+X modular system should be established, with the first two years laying the foundation and the second two years aligning with industry trends. X represents micro-certificates or enterprise projects. Strategic adjustments require simply replacing the X module, reducing reform costs and time.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Quality assurance focuses on compliance inspections. A whole-process quality spiral should be established: integrating all five stages of program establishment, curriculum implementation, practical training, employment, and graduate tracking into the PDCA cycle. Annual quality reports should be published every academic year, with joint review by businesses and students, creating a closed-loop ecosystem for continuous improvement.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

School data is fragmented and interpretation is weak. A cross-departmental data analyst seed team can be established, with external corporate mentors teaching SQL and Power BI. Each semester, a professional early warning report based on employment big data can be submitted to provide quantitative evidence for strategic adjustments, gradually fostering an evidence-based culture.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Rapid technological evolution lags behind traditional five-year plans. The agile sprint model should be adopted, with quarterly reviews of industry demand and employment data. Curriculum or budget adjustments should be made immediately when necessary to ensure that strategy aligns with the environment.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Career ceilings are blurring. A dual-channel promotion system can be established: a management track from deputy section chief to director, and a professional track from assistant professor to industry professor. Equal treatment at

both levels allows teachers to freely switch between administrative and professional roles, stimulating growth.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Academic misconduct still occurs. A dual-step process of integrity oath + system duplication check should be added before employment, professional title, and project applications. Violators should be banned from performance evaluations for three years and publicly reported. This will reinforce the shared understanding that integrity is the ticket through institutional red lines.

Interviewee 4

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Cross-departmental collaboration is difficult because of fragmented goals. We should establish integrated teams covering teaching-practical training-employment-research, with members sharing KPIs and profits distributed based on contribution. Those with excellent annual performance evaluations should be prioritized for promotion to industry professors, addressing the lack of motivation for collaboration.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Strategic decision-making lacks real-time data. We need to connect enrollment, teaching, employment, and financial data lakes, deploy AI predictive models, and provide 18-month advance warning of industry talent gaps. This will provide a quantitative basis for strategic adjustments and achieve a data-driven strategy rather than a feel-based approach.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Student services are fragmented across academic affairs, student affairs, and the Communist Youth League, resulting in a poor user experience. An integrated student portal could be developed, integrating modules such as course selection, financial aid, psychological counseling, and employment. It could also provide one-stop mobile services and a shared backend database to reduce duplicate reporting, thereby improving satisfaction and retention.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Departmental barriers lead to information silos. Training on nonviolent communication and stakeholder mapping should be offered to enable administration, teaching, and business to communicate using the same tools. All project kickoff meetings should be organized as roundtable consensus meetings to significantly improve collaboration efficiency and satisfaction.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Servant leadership requires institutional implementation. A Leadership Service List could be established, with each school leader assigned to a secondary college. They would spend at least one day each month on-site to address specific challenges, such as teacher equipment and student internships. Results would be reported at the faculty representative meeting.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

New employees are slow to get up to speed. A Qinglan Project should be implemented, assigning each new employee dual mentors: on-campus and in-

company mentors. They should complete three rounds of on-the-job training, including teaching, research, and project development, within a year. Only after passing the assessment can they perform their duties independently, ensuring rapid knowledge transfer.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Insufficient motivation for innovation. A micro-innovation seed fund could be established, allocating 2% of the annual budget to support collaborative teams of teachers, students, and businesses to address real campus pain points within 48 hours. Outstanding projects would be prioritized for provincial competitions, fostering an environment where failure is tolerated and success is rewarded.

Interviewee 5

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Unclear reporting lines lead to accountability failures. It is recommended to launch an online process dashboard that automatically pushes key milestones to school leaders' phones. Overdue reports will be flagged and directly linked to departmental budgets and cadre performance, creating a dual insurance policy of online traceability + financial pressure.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Differentiation strategies often become mere slogans. A professional competitiveness index should be established, incorporating regional industry share, graduate salaries, and corporate satisfaction into the score. Majors scoring below the threshold should suspend enrollment expansion, with resources redirected to high-

potential sectors. The index ensures what should be done and what should not be done.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

The feedback mechanism is superficial. A 5-second review QR code should be sent immediately after each course and practical training project. The data should be automatically aggregated to the quality platform. If the score falls below the set threshold, an alert will be triggered, and the course leader will be required to submit an improvement report within one week, achieving immediate review and immediate correction.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Technology is evolving rapidly, leaving employees with insufficient motivation to continue learning. A 15-minute micro-lecture platform could be established to distribute new knowledge on AI and green manufacturing in a fragmented format. Combined with a points ranking system and training subsidies, this could encourage daily learning and ensure constant updates.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Faculty and staff engagement is low. He suggested holding a World Café-style forum before major reforms, allowing frontline teachers and student representatives to jointly develop process maps, vote on priorities, and incorporate conse.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

The work intensity is high and the life balance is unbalanced. Flexible working hours and remote work can be implemented, allowing teaching and research positions to complete research at home at least one day a week. Annual mental health leave should be established, and facilities such as gyms and parent-child rooms should be provided to reduce burnout.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Diversity is easily overlooked. We should include a diversity background weighting in recruitment and performance evaluation criteria, assigning mentors to teachers from ethnic minorities and those with corporate experience. We should also hold international cultural festivals and bilingual teaching competitions to ensure that diverse perspectives are visible and respected in the classroom and on campus.

Interviewee 6

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Chinese companies often engage in governance in a perfunctory manner. They could establish an Industry-Education Committee under the board of directors, with at least one-third of the members representing the company and veto power over training programs. Contract performance could also be factored into local tax exemption reviews, creating a deeper alignment of interests.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Strategic communication is a shortcoming. Strategic Decoding Workshops can be used to allow school leaders and frontline teachers to jointly develop strategic maps, transform ambitious goals into departmental action plans, and sign performance contracts. Annual performance appraisals can be directly linked to

compensation to ensure that the strategy is understood, accepted, and effectively implemented.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

The financial system prioritizes accounting over performance. It recommends implementing a zero-based budgeting + project library management system. All expenditures must be aligned with quantifiable performance targets. The platform should publicly disclose project progress and fund utilization in real time, subject to online oversight by faculty and staff representatives and higher-level authorities, ensuring that funds are spent clearly and effectively.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Project overruns and delays are common. He recommends the unified adoption of cloud-based PMO tools to provide practical training for middle-level managers on milestones, risks, and resources. He also recommends tying project completion to departmental budgets, forming a closed-loop plan-track-review system to improve delivery reliability.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Diversity is often overlooked. A diversity background weighting could be established in recruitment and professional title reviews. Mentoring programs could also be established for teachers from ethnic minorities and those with corporate backgrounds. Through sharing sessions at festivals and co-developing courses, diverse perspectives could be showcased to enhance a sense of belonging.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Incentive methods are limited. It is recommended to establish an instant recognition platform where employees can give likes to colleagues at any time, and points can be redeemed for training funds or vacation time. Annual recognition should include multiple categories such as the Best Collaboration Award and the Industry Service Award to reinforce positive behavior.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Social responsibility lacks a key focus. A carbon-neutral campus could be incorporated into development plans, with teachers and students participating in energy-saving monitoring and community vocational training through courses and clubs. Annual social responsibility reports should be published, quantifying and publicly reporting green contributions and public service hours to enhance everyone's sense of mission.

Interviewee 7

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Egalitarian resource allocation stifles emerging disciplines. A quantitative model for professional prosperity should be established, with scores linked to budget coefficients. Programs scoring below 60 points for two consecutive years will automatically see a 10% reduction in funding, with the funds allocated to support areas in urgent need, ensuring that high-quality resources are used where they are needed most.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Internationalization strategies prioritize form over content. We should focus on exporting vocational education standards overseas and jointly build Luban

Workshops with partners along the Belt and Road Initiative. We should package and export curriculum standards, practical training equipment, and assessment tools, enhancing our international reputation while also contributing to the upgrading of domestic standards, achieving the goal of going global while bringing in.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Curriculum updates lag behind the industry. An Industry Technology Radar system should be established to capture real-time information from job websites, patents, and standards. AI-powered predictions should be used to predict skill needs over the next 18 months and automatically prompt curriculum adjustments. Enterprise technical documents should also be incorporated as teaching cases to achieve simultaneous iteration between the demand side and the curriculum side.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Innovation often remains a slogan. Micro-innovation hackathons could be held every semester, allowing teachers and students to form teams and solve real campus pain points within 48 hours. Winning projects would receive seed funding and additional professional title points, turning innovative ideas into practical applications.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Results-oriented approaches are merely slogans. Quantified hard indicators such as professional group salaries, company satisfaction, and project completion should be directly linked to departmental budgets and year-end bonuses for cadres. Using data to guide teams' focus on output would be crucial.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Employees lack a sense of engagement. Regular roundtable lunches should be held, with school leaders answering faculty and staff questions on the spot, and the progress of rectification should be publicly displayed on the OA system. Project start-up funds should be provided to those who provide outstanding suggestions to enhance their sense of being heard and valued.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Departmental goals are fragmented. Through Shared Vision Workshops, administration, teaching, and business should jointly develop a five-year blueprint. This vision should be broken down into shared KPIs, such as regional industry talent satisfaction rate $\geq 90\%$. All project approvals must align with this indicator to avoid independent work.

Interviewee 8

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

The weak role of middle-level managers as bridges is due to information gaps. A shadow principal program could be implemented, with outstanding department heads taking turns attending school meetings. Furthermore, they would visit the front lines of teaching each week to write middle-level weekly journals, sharing questions and suggestions. This would create a closed loop between top and bottom, enhancing strategic execution.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Digital strategies often fall into information silos. He recommends adopting a cloud-native SaaS architecture, unifying identity authentication and API interfaces, and integrating academic, research, employment, and financial data to achieve single sign-on and full-chain analysis, providing a real-time, reliable data foundation for strategic decision-making.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Project management tools are fragmented. A unified cloud-based PMO platform can be used to track milestones, resources, and risks across all disciplines, training bases, and research projects. Automatic red, yellow, and green light alerts will be provided, and project delays will be linked to the project manager's performance bonus, ensuring timely and high-quality delivery of projects.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

International literacy is lacking. Cloud classrooms should be jointly established with partner overseas universities, with administrative staff taking turns serving as international project coordinators. By handling dual degree and credit recognition issues, cross-cultural communication and negotiation skill can be improved through practical experience.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Autonomy can easily turn into laissez-faire. A dual-control model of RACI + Milestones can be adopted. Project teams have budgetary access but must submit weekly progress milestones. Overdue deadlines automatically trigger alerts. This approach empowers and holds people accountable, ensuring a balance of rights and responsibilities.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

skill updates are lagging behind. A personal learning account can be established, with an annual 2,000 RMB online course credit allocated to purchase new industry technologies and teaching methods. Upon completion, learning should be shared within the teaching and research group, achieving the goal of one person learning, the whole team benefits.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Excessive internal competition. He recommends adopting a distribution formula of 70% of bonuses based on team performance + 30% based on individual contribution, with cross-departmental project benefits shared based on contribution. Joint exhibitions should also be held to highlight team success stories and reinforce the mindset of collaboration leads to win-win outcomes.

Interviewee 9

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

Fragmented information systems hinder data governance. We recommend adopting a cloud-native SaaS architecture, unifying identity authentication and API interfaces, connecting academic affairs, finance, research, and employment data, and enabling single sign-on and full-chain analysis, providing a real-time decision dashboard for structural optimization.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Strategy lacks an iterative mechanism. Every academic year, a strategic health check should be conducted by a third party, in-school supervisors, and corporate representatives. Scores should be assigned across three core indicators: industry alignment, employment quality, and financial contribution. If the score falls below 80, immediate fine-tuning should be initiated to ensure that the strategy aligns with external needs.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

Risk management is often a post-event approach. A risk indicator library should be established to monitor policy changes, enrollment declines, funding gaps, and public opinion events, setting thresholds and contingency plans. Regular tabletop exercises should be conducted to embed risk prevention and control into daily management, shifting from firefighting to fire prevention.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

Teachers' teaching methods are updating slowly. Flipped classroom + action-oriented workshops could be introduced, allowing teachers to experience new teaching methods with students and then record the lessons on their phones for self-evaluation. At the same time, classroom satisfaction and student skill growth should be factored into performance evaluations to drive continuous innovation in teaching methods.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

There is a lack of feedback channels for improving cultural awareness. A Snap app can be developed to encourage teachers and students to upload classroom and practical training issues. Responsible departments will be assigned

within 24 hours, and the results will be publicly ranked, creating a closed loop of problem discovery - immediate improvement - public incentives.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Internal trust within the team is low. A cross-departmental project system should be implemented to enforce mixed staffing, assigning administrative, teaching, and business personnel to the same projects, sharing KPIs and bonuses. Weekly meetings and brainstorming sessions should be used to enhance communication and gradually build mutual trust and a shared vision.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

The sense of accomplishment is insufficiently immediate. A Monthly Value Star competition could be established, with teachers and students voting online. The winners' photos could be displayed on campus screens, and they could be awarded research funding or travel incentives for academic conferences, making positive energy visible and tangible.

Interviewee 10

1.What about the current situation of the educational administration in structure of higher vocational education administration in China and how to promote Structure of the educational administration?

The lack of structural review leads to rigidity. Every academic year, the Quality Office should lead a structural health diagnosis involving external industry consultants, on-campus supervisors, and student representatives. Fine-tuning should be initiated if core indicators fall below 80 points to ensure the governance structure is aligned with strategic goals.

2.What about the current situation of strategy of higher vocational education administration in China and how to promote the strategy of the educational administration?

Strategic resources are dispersed. A strategic seed fund could be established, allocating 3% of the school budget annually to solicit micro-innovation projects from teachers, businesses, and students. Using a competitive mechanism, high-potential projects could be identified and additional investment could be made. This would both encourage the emergence of bottom-up strategies and reduce the risk of betting on the wrong horse.

3.What about the current situation of the educational administration in systems of higher vocational education administration in China and how to promote the systems of the educational administration?

System updates are often overlooked. It is recommended that a system health check be conducted every academic year by a third party + on-campus supervisors + corporate representatives to score data accuracy, process efficiency, and user satisfaction; modules with scores below 80 will be immediately placed in the update pool, and funding will be prioritized to support iterations to ensure that all systems remain efficient, advanced, and sustainable.

4.What about the current situation of the educational administration in skill of higher vocational education administration in China and how to promote the skill of the educational administration?

There is a lack of systems for continuous professional development. Schools should include annual continuing education hours in employment contracts, linking them to professional titles and salaries, and establish personal development accounts where employees can independently choose conferences, company internships, or overseas training, creating an internal mechanism for lifelong learning.

5.What about the current situation of the educational administration in Style of higher vocational education administration in China and how to promote the Style of the educational administration?

Leadership by example is crucial. Principals should adhere to the Three Presences principle: attending major competitions, corporate contract signings, and research results presentations. They should also publicly disclose their annual goal completion status, demonstrating the values of quality and service through their own actions, and fostering a positive atmosphere of shared responsibility and effectiveness throughout the school.

6.What about the current situation of the educational administration in staff of higher vocational education administration in China and how to promote the staff of the educational administration?

Performance evaluations are superficial. A hybrid OKR + 360-degree model is recommended, with measurable goals set quarterly and evaluated by superiors, colleagues, and students at the end of each period. Results are linked to promotions and training resources. Coaching should be provided to low performers to ensure continuous growth and alignment with school goals.

7.What about the current situation of the educational administration in shared value of higher vocational education administration in China and how to promote the shared value of the educational administration?

Leadership and exemplary leadership are crucial. Principals and senior executives should publicly disclose their personal annual goals for practicing values (such as attending classes four times a month and having dialogues with businesses twice a month) and report on the completion status in their performance appraisals at faculty and staff congresses. At the same time, values should be included in cadre assessments with a weight of no less than 30%, truly realizing an authentic culture of the top leader takes the lead and the entire school follows suit.

Evaluation Form

Development of Higher Vocational Education Administration In China

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
1	Establish a multi-level management framework with clear responsibilities and authority distribution.						
2	Develop flexible departmental structures that adapt to evolving industry demands efficiently.						
3	Implement a flat organizational design to enhance communication and decision-making speed.						
4	Create cross-functional teams to foster collaboration between academic and administrative units.						
5	Define clear reporting lines to avoid ambiguity and ensure accountability at all levels.						
6	Integrate industry partners into the governance structure for real-world relevance alignment.						
7	Optimize resource allocation mechanisms to support strategic priorities effectively.						
8	Build scalable frameworks that accommodate future expansion and specialization needs.						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
9	1DStrengthen intermediate-level management to bridge top leadership and frontline execution.						
10	Regularly review and adjust structures to maintain alignment with institutional goals.						
11	Formulate long-term visions aligned with national economic and social development goals.						
12	Develop dynamic strategic plans that respond swiftly to market changes and opportunities.						
13	Prioritize differentiation strategies to create unique institutional competitive edge and value.						
14	Foster innovation-driven strategies to enhance educational quality and relevance continuously.						
15	Implement focused strategies that target high-demand sectors and emerging industries.						
16	Promote internationalization strategies to broaden global perspectives and cooperation.						
17	Adopt data-informed decision-making processes to guide strategic adjustments accurately.						
18	Enhance stakeholder engagement strategies to ensure alignment and						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
	support widely.						
19	Leverage digital transformation strategies to modernize operations and service delivery.						
20	Evaluate strategic outcomes regularly to ensure objectives are met successfully.						
21	Establish robust performance management systems to monitor and evaluate progress effectively.						
22	Implement integrated information systems to streamline data flow and enhance accessibility.						
23	Develop quality assurance systems that maintain high educational standards consistently.						
24	Create efficient student service systems to support holistic development and satisfaction.						
25	Install feedback mechanisms to capture insights from students, staff, and employers regularly.						
26	Build financial management systems that ensure transparency and sustainability over time.						
27	Design curriculum development systems that are responsive to industry trends promptly.						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
28	Adopt project management systems to facilitate efficient execution of initiatives successfully.						
29	strengthen risk management systems to identify, assess, and mitigate potential threats proactively.						
30	Regular system audits and updates to maintain efficiency and relevance continually.						
31	Cultivate digital literacy across all administrative and academic functions comprehensively.						
32	Enhance leadership skill among managers to drive change and inspire teams effectively.						
33	Develop data analysis capabilities to support evidence-based decision-making processes accurately.						
34	Foster communication skill to improve coordination and stakeholder engagement significantly.						
35	Promote adaptive learning skill to keep pace with technological and industrial changes.						
36	Strengthen project management skill to ensure timely and within-budget delivery consistently.						
37	Encourage innovation skill to solve problems and create new						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
	opportunities creatively.						
38	Build intercultural competencies to operate successfully in global contexts confidently.						
39	Upgrade pedagogical skill for educators to enhance teaching effectiveness and student outcomes.						
40	Provide continuous professional development opportunities to sustain skill relevance perpetually.						
41	Adopt collaborative leadership Style to encourage teamwork and shared ownership widely.						
42	Practice transparent decision-making to build trust and commitment among stakeholders.						
43	Embrace adaptive management approaches to navigate uncertainties and changes flexibly.						
44	Promote servant leadership principles to prioritize support for staff and students alike.						
45	Encourage participatory Style that involve employees in planning and implementation processes.						
46	Model inclusive behaviors to respect diverse perspectives and foster belonging genuinely.						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
47	Demonstrate results-oriented focus to maintain momentum and achieve objectives efficiently.						
48	Balance autonomy with accountability to empower teams while ensuring responsibility clearly.						
49	Foster a culture of continuous improvement through constructive feedback and learning.						
50	Lead by example to embody institutional values and expectations consistently everyday.						
51	Recruit diverse talents with relevant expertise and strong alignment to institutional values.						
52	Offer competitive compensation packages to attract and retain high-performing professionals.						
53	Provide clear career pathways and development opportunities to motivate staff growth.						
54	Implement mentorship programs to facilitate knowledge transfer and support new employees.						
55	Encourage work-life balance to maintain high morale and reduce burnout effectively.						
56	Recognize and reward contributions to reinforce positive behaviors and						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
	outcomes regularly.						
57	Foster a supportive environment where staff feel valued, heard, and empowered daily.						
58	Invest in continuous training to keep skill updated with industry and educational advancements.						
59	Build strong teams through trust, mutual respect, and shared goals collaboration.						
60	Conduct regular performance reviews to provide feedback and align individual organizational objectives.						
61	Define and communicate core values that guide behavior and decision-making universally.						
62	Instill a student-first philosophy to ensure all actions prioritize learner success ultimately.						
63	Promote integrity and ethics as non-negotiable principles in all operations consistently.						
64	Encourage innovation and excellence as fundamental drivers of institutional advancement.						
65	Foster inclusivity and respect for diversity in every aspect of institutional life actively.						
66	Cultivate social responsibility and						

NO.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
	commitment to sustainable development practices broadly.						
67	Build a sense of shared purpose and collective responsibility towards common goals.						
68	Emphasize collaboration over competition to strengthen internal and external partnerships.						
69	Celebrate achievements and milestones to reinforce pride and belonging community-wide.						
70	Live the values daily through actions, policies, and communications to ensure authenticity.						

Suggestion and more

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Appendix D

The Results of the Quality Analysis of Research Instruments

IOC Form

The index of objective congruence (IOC)

DEVELOPMENT OF HIGHER VOCATIONAL EDUCATION ADMINISTRATION IN CHINA

NO.	Question	IOC	Validity	Suggestion
1	Flatten organizational hierarchy for agility.	1	valid	
2	Create cross-functional industry collaboration committees.	1	valid	
3	Decentralize budgeting and hiring powers.	1	valid	
4	Establish joint boards with enterprises.	1	valid	
5	Develop integrated digital management platforms.	1	valid	
6	Optimize department roles for efficiency.	1	valid	
7	Align with national Double High Plan.	1	valid	
8	Dynamically adjust programs for market needs.	1	valid	
9	1Develop niche specialized disciplinary clusters.	1	valid	
10	Build innovation and entrepreneurship ecosystems.	1	valid	
11	Pursue international program accreditation.	1	valid	
12	Implement digital transformation strategies.	1	valid	
13	Implement total quality management systems.	1	valid	
14	Digitalize administrative approval workflows.	1	valid	
15	Adopt performance-based budgeting systems.	1	valid	
16	Establish data-driven KPI monitoring.	1	valid	
17	Create transparent faculty promotion systems.	1	valid	

NO.	Question	IOC	Validity	Suggestion
18	Formalize industry-academia cooperation mechanisms.	1	valid	
19	Mandate annual industry teacher certifications.	1	valid	
20	Build simulation and VR training labs.	1	valid	
21	Integrate cross-disciplinary skill modules.	1	valid	
22	Offer digital micro-credential certification systems.	1	valid	
23	Organize national skill competitions annually.	1	valid	
24	Train administrators in data analysis.	1	valid	
25	Practice servant leadership model.	1	valid	
26	Encourage participatory decision-making processes.	1	valid	
27	Foster agile and adaptive leadership.	1	valid	
28	Implement open-door communication policies.	1	valid	
29	Model lifelong learning behaviors.	1	valid	
30	Reward team-based achievements primarily.	1	valid	
31	Recruit industry experts and PhDs.	1	valid	
32	Provide performance-based compensation packages.	1	valid	
33	Hire part-time industry engineers.	1	valid	
34	Establish dual-career ladder systems.	1	valid	
35	Create mentorship programs for teachers.	1	valid	
36	Offer tiered professional development pathways.	1	valid	
37	Values Embed moral education in curricula.	1	valid	
38	Celebrate craftsman spirit publicly.	1	valid	
39	Prioritize student-centered policy design.	1	valid	

NO.	Question	IOC	Validity	Suggestion
40	Build strong institutional identity pride.	1	valid	
41	Eliminate moral education from curricula.	0	valid	
42	Prioritize theoretical learning over practice.	0	invalid	
43	Discourage collaboration between departments.	0	invalid	
44	Reduce focus on industry contributions.	0	invalid	
45	Minimize student-centered policy development.	0	invalid	

Appendix E

Certificate of English



This is to certify that

Mrs. Jun Jiang

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C2

Given on 3rd October 2020

A handwritten signature in blue ink, which appears to read 'Kulsirin', is placed over the printed name of the director.

(Assistant Professor Dr Kulsirin Aphiratvoradej)

Director

Appendix F

The Document for Acceptance Research

**TPM Journal**

to patchara.de, me

31 minutes ago [Details](#)

Dear Author(s),

We are pleased to inform you that your manuscript titled: "Development of Higher Vocational Education Administration in China" has been **accepted for publication** in *TPM – Testing, Psychometrics, Methodology in Applied Psychology* (ISSN: 1972-6325).

We commend you on the quality and relevance of your work, and we are confident that it will make a valuable contribution to the academic community and to ongoing research in the field.

Should you have any questions regarding the next steps in the publication process, or if you require further assistance, please do not hesitate to contact the Editorial Office.

We sincerely appreciate your contribution and look forward to publishing your work in an upcoming issue of the journal.

—

Editorial Office**TPM – Testing, Psychometrics, Methodology in Applied Psychology**www.tpmap.org

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Work Experience

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