

GUIDELINE FOR DEVELOPING THE VOCATIONAL CREATIVITY
AND INNOVATION ABILITY OF UNIVERSITY TEACHERS
IN CHONGQING

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for the Degree of Doctor of Philosophy Program in Educational Administration
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Thesis Title Guideline For Developing the Vocational Create and Innovation Ability
of University Teachers in Chongqing

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ABSTRACT

The topic of this study is " Guideline for developing the vocational creativity and innovation ability of university teachers in Chongqing". The objective are as follows: 1) In order to investigate the level of vocational creative and innovation ability of university teachers at Chongqing. 2) In order to examine the factors affecting the level vocational creative and innovation ability of university teachers at Chongqing. 3) In order to guideline for develop creative and innovation ability of university teachers at Chongqing. It includes four aspects: innovative learning system, innovation consciousness, innovative skills and innovative achievements. This study samples university teachers from ten different types of universities in Chongqing. Including 397 questionnaires and 30 interviews, the research tools used were literature analysis, questionnaire survey, structured interviews, and evaluation tables to statistically analyze the data and standard deviation.

The research results show that there is still great space for improvement in the current situation of professional innovation and creativity among university teachers in Chongqing. Compare the education status in developed regions, innovation skills at the highest level in the four fields, followed by innovation achievements, innovation consciousness, and innovative learning systems. All projects are at a high or highest level, This means that the guidelines for improving the professional creativity and innovation ability of Chongqing university teachers are adaptable and feasible.

Keyword: Vocational creativity, Innovation ability

ชื่อเรื่อง	แนวทางการพัฒนาความสามารถด้านนวัตกรรมและการ สร้างสรรค์วิชาชีพของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่ง
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ปีการศึกษา	2566

บทคัดย่อ

การวิจัยเรื่องแนวทางการพัฒนาความสามารถด้านนวัตกรรมและการสร้างสรรค์วิชาชีพของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่ง มีวัตถุประสงค์การวิจัย ดังนี้ 1) เพื่อตรวจสอบระดับความสามารถด้านนวัตกรรมและการสร้างสรรค์วิชาชีพของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่ง 2) ศึกษาปัจจัยที่มีผลกระทบต่อระดับความสามารถด้านนวัตกรรมและการสร้างสรรค์วิชาชีพของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่ง 3) เพื่อเป็นแนวทางในการฝึกอบรมความสามารถด้านนวัตกรรมของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่ง ซึ่งประกอบไปด้วย 4 ด้าน คือ ระบบการเรียนรู้นวัตกรรม การรับรู้ด้านนวัตกรรม ทักษะด้านนวัตกรรม ผลสำเร็จของนวัตกรรม กลุ่มตัวอย่างที่ใช้ในการวิจัยครั้งนี้เป็นอาจารย์มาจากมหาวิทยาลัยต่าง ๆ ที่แตกต่างกัน ทั้งหมด 10 แห่ง ประกอบด้วย แบบสอบถาม 397 คน และแบบสัมภาษณ์ 30 คน เครื่องมือที่ใช้ในการวิจัย คือ การทบทวนวรรณกรรม การสำรวจด้วยแบบสอบถาม การสัมภาษณ์แบบมีโครงสร้าง และแบบประเมินผลเพื่อวิเคราะห์ข้อมูลทางสถิติและส่วนเบี่ยงเบนมาตรฐาน

ผลการวิจัยพบว่า สถานการณ์ปัจจุบันของการสร้างสรรค์วิชาชีพและนวัตกรรมของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่งเทียบกับสถานการณ์ปัจจุบันของการศึกษาในพื้นที่พัฒนายังมีช่องว่างสำหรับการพัฒนาอีกมาก ทักษะด้านนวัตกรรมอยู่ในระดับสูงที่สุดใน 4 ด้าน รองลงมาคือผลสำเร็จของนวัตกรรม การรับรู้ด้านนวัตกรรม และระบบการเรียนรู้นวัตกรรม ทุกด้านอยู่ในระดับสูงหรือค่อนข้างสูง ซึ่งหมายความว่าแนวทางการพัฒนาความสามารถด้านนวัตกรรมและการสร้างสรรค์วิชาชีพของอาจารย์มหาวิทยาลัยในมณฑลฉงชิ่งมีความเป็นไปได้และสามารถปรับใช้ได้

คำสำคัญ : การสร้างสรรค์วิชาชีพ ความสามารถด้านนวัตกรรม

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I hope what I learn can help people in need!

Li Hongque

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Chapter 1

Introduction

Rationale

From July 28 to 31, 2022, the live competition area of the Second National Teaching Innovation Competition for College Teachers in China was held in Xi'an Jiaotong University. A total of 10 teachers (Teams) from Chongqing participated and won 2 first prizes, 5 second prizes, and 3 third prizes. The second National College Teacher Teaching Innovation Competition, with the theme of "Promoting Teaching Innovation and Cultivating First Class Talents," was launched in September 2021. A total of 60879 teachers from 1195 universities in 31 competition regions participated in the competition. This competition indicates that the professional creativity and innovation of teachers in Chinese universities are being valued and developed. As the youngest municipality directly under the central government in China, Chongqing's university education is also thriving.

As early as May 2015, the State Council of China issued the "Implementation Opinions on Deepening the Reform of Innovation and Entrepreneurship Education in Higher Education Institutions", which clarified the guiding ideology, basic principles, and overall goals for deepening the reform of innovation and entrepreneurship education in higher education institutions. At present, although innovation and entrepreneurship education has gradually been launched in various universities, there are still problems such as incomplete innovation and entrepreneurship curriculum system, incomplete innovation and entrepreneurship teaching staff, and lack of innovation and entrepreneurship practice bases. In response to these problems, many scholars have conducted in-depth analysis and research on the reform of innovation and entrepreneurship education. For example, Teacher Wang Na studied incentive mechanisms and policies for innovation and entrepreneurship education; Teacher Wu Yujian explored the difficulties and path choices of innovation and entrepreneurship education reform in universities; Teacher Zhu Aihui explored the reform content of innovation and entrepreneurship education in private universities, mainly including cultivating "dual teacher" innovation and entrepreneurship teachers, establishing an

innovation and entrepreneurship credit system, and strengthening the deep integration mechanism of innovation and entrepreneurship education and professional education; Teacher Lan Kui studied the reform and development path of innovation and entrepreneurship education in newly established undergraduate colleges; Teacher Xie Heping explored teaching reform guided by innovation and entrepreneurship education. (Chen Jiang, 2016).

However, there is little research on the creativity of local university teachers, so it has great research value. At the same time, currently, many studies mainly focus on the design and implementation of innovation and entrepreneurship education reform plans, or focus on the effectiveness of innovation and entrepreneurship education reform implementation. However, there is relatively little research on the innovation and creativity ability of the leaders in implementing innovation and entrepreneurship education. When it comes to local universities, there is a greater need for specialized research on the professional creation and innovation ability of university teachers. (Liu Hongrui, 2014).

Therefore, this article intends to select teachers from ten universities in Chongqing as examples, take the creative and innovative abilities of university teachers as the research object, analyze the main characteristics and influencing factors of university teachers' creative and innovative behavior, propose the basic connotation of university teachers' innovative abilities, and design an evaluation index system for the development of university teachers' innovative abilities. From the perspective of empirical research, investigate and analyze the actual level of university teachers' creative and innovative abilities, To verify the effective relationship between the creative and innovative abilities of university teachers and their career development. (Mao Huixiang, 2020).

The cultivation of innovative talents cannot be separated from the innovation of education, and its fundamental lies in the innovation and construction of the teaching staff. Universities bear the important mission of serving local economic and social development and cultivating high-level applied talents. The innovative ability of university teachers refers to the difference and novelty that teachers demonstrate in the process of teaching reform, applied research, and social

services, efficiently discovering, proposing, and solving new problems for local economic and social development, A complex of innovative behavioral abilities that creatively carry out teaching and research work. Specifically, the innovation ability of university teachers mainly involves learning innovation ability, teaching reform ability, applied research ability, and social service ability, which is reflected in basic elements such as innovation consciousness, innovative thinking, innovative practice, teaching practice, scientific research practice, team collaboration ability, and self-learning ability. Creativity is a fundamental element that university teachers must possess in teaching and research.

In 2012, the Ministry of Education began implementing the national level innovation and entrepreneurship training program for college students, aiming to promote the transformation of educational concepts in universities, reform talent cultivation models, strengthen innovation and entrepreneurship ability training, enhance the innovation and entrepreneurship abilities of college students, and cultivate high-level talents that meet the needs of building an innovative country. (Li Chun,2018).The plan clearly requires that attention be paid to the construction of the mentor team for the innovation and entrepreneurship training program for college students; Implement the Mentorship for students who participate in the innovation and entrepreneurship training program for college students; Participating universities should develop relevant incentive measures to encourage their teachers to serve as mentors for college students' innovation and entrepreneurship training programs. Some universities also actively hire corporate mentors to guide students' entrepreneurship training and practice. In the Outline of the 13th Five Year Plan, the determination to enhance the ability of universities to cultivate innovative talents is further clarified. Build a first-class teaching staff and update teaching content with new theories, knowledge, and technologies. Promote the classification management of higher education and the comprehensive reform of higher education institutions, optimize the layout of disciplines and majors, reform the talent cultivation mechanism, focus on cultivating students' innovation and entrepreneurship abilities, and comprehensively improve the innovation ability of universities.

So, by sorting out the relevant policy theories on the professional creativity and innovation of university teachers in China, especially in Chongqing, and conducting research and analysis on the current situation of the professional creativity and innovation of university teachers in Chongqing, we hope to explore specific measures to enhance the professional creativity and innovation of university teachers in Chongqing, Thus promoting the development of professional creativity among university teachers in Chongqing and promoting education and teaching related work in universities.

Research Question

1. What is the current situation of vocational creative and innovation ability of university teachers in Chongqing?
2. What are the guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing?
3. Are the guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing adaptability and feasibility?

Research Objective

1. To study the current situation of vocational creative and innovation ability of university teachers in Chongqing.
2. To provide the guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing.
3. To evaluate the adaptability and feasibility of guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing.

Research Hypothesis/Hypotheses

1. The development of vocational creative and innovation ability of university teachers in Chongqing is positively correlated with the innovation development of university teachers themselves.

2. The guidelines for developing the vocational creative and innovation ability of university teachers and the assumption of the best matching of innovation ability evaluation in Chongqing .

Scope of the Research

Population and the Sample Group

Population

The total population of this study is 50007 teachers from 71 colleges and universities in Chongqing.

The Sample Group

According to Yamane Taro sample scale, 397 college teachers in Chongqing were selected as research objects. The samples were randomly selected from 10 colleges and universities, which were: Army Medical University, Chongqing University of Posts and Telecommunications, Chongqing Technology and Business University, Pais College of Chongqing Technology and Business University, Chongqing Vocational of Electronic Engineering, Chongqing Vocational College of Industry and Technology, Chongqing Vocational College of Urban Management, Chongqing Vocational College of Engineering and Technology, Chongqing University of Electric Power.

The sample selection of interview research was based on Patricia A. Adler and Peter Adler's recommendation for doctoral research: 12-60, with an average of 30. Sampling is carried out in proportion among 10 universities, but the following conditions must be met: 1) The interviewees must be university teachers in Chongqing, and retired teachers are not included in the scope of this survey. 2) Teachers who take the initiative to complete the "Questionnaire of vocational creativity and Innovation of university teachers in Chongqing" are preferentially selected by the visitors.

Guidelines for Adaptability and Feasibility Assessment Teams

In the evaluation of Chongqing University teachers' vocational creativity and innovation ability development guide, 5 experts and teachers who have made outstanding achievements in the field of innovation and entrepreneurship in

Chongqing universities are selected. This paper evaluates the guidance on the development of vocational creativity and innovation ability of university teachers in Chongqing through expert evaluation form, and then evaluates the adaptability and feasibility of the guidance through data analysis. The basic conditions guaranteed by the expert team are as follows:

1. At least 10 years of university work experience.
2. I have outstanding experience and achievements in the development of creativity and innovation among university teachers.
3. All professional titles are associate professors or above.

The Variable

According to the analyzed of related theories and researches, the vocational creativity and innovation ability of university teachers are as follows:

1. Innovate learning system
2. Innovation consciousness
3. Innovation skills
4. Innovation achievement

Contents

The main content of this study is to select teachers from ten colleges and universities in Chongqing as samples, take the vocational creativity and innovation ability of university teachers as the research object, analyze the current situation, main characteristics and influencing factors of the creative innovation behavior of universities teachers in Chongqing, put forward a guide to improve the innovation ability of universities teachers, and design the evaluation of the guide.

Advantages

Advantages to the Education System

1. Through the questionnaire survey and interview survey of the vocational creativity and innovation ability of university teachers in Chongqing, this study clarifies the development status of the vocational creativity and innovation ability of university teachers in Chongqing, and plays a role in understanding and

analyzing the development of vocational creativity and innovation ability of university teachers in Chongqing and other regions.

2. In guideline with the innovative talent model and the basic talent needs of colleges and universities, this study proposed a guide suitable for the development of college teachers' innovation and innovation ability in Chongqing, and evaluated the guide, which played a practical reference and reference significance for the development of Chongqing's college education and teaching system.

Advantages for University Teachers

1. Through the research on the vocational creativity and innovation ability of university teachers in Chongqing, this paper identifies the influencing factors of creativity and innovation ability of teachers in universities and colleges in Chongqing, and college teachers can identify specific ways to improve their creativity according to the research.

2. This research guide can effectively help colleges and universities in Chongqing to select, assess and train teachers, and also play a directional role in improving their career planning and development.

Definition of Terms

Vocational Create The current popular view in China refers to the ability to discover, propose, analyze and solve problems creatively. It is the ability of people to provide new ideas and concepts with economic, social and ecological values in human practice on the basis of theoretical knowledge. Theory, new method and new invention ability, it is a kind of comprehensive ability, including people's cognitive ability and practical ability. The creation of teachers' profession means that various problems in different periods will arise in the process of education. Teachers should keep pace with the times, constantly improve the frequency of knowledge updates, update their knowledge reserves at any time, and use creative ideas, teaching ideas and teaching ideas. In order to impart knowledge to students, one must be conscientious, be good at using a new method to solve relevant educational problems, and put it into action according to the method.

Innovation Ability The term innovation was first proposed by the famous economist Joseph Alois Schumpeter in his 1912 book "The Theory of Economic Development". The essence of innovation is progress, innovation means eliminating old ideas, old technologies, and old systems, and cultivating new ideas, new technologies, and new systems; the essence of innovation is not to be a replicator. In this study, the innovation ability of university teachers refers more to the ability to discover, propose, analyze and solve problems creatively., new methods and new inventions.

University Teachers This research mainly refers to two groups of higher vocational college teachers and university teachers. According to Article 2 of the "Higher Education Law of the People's Republic of China", the implementation of higher education refers to the completion of education based on higher education. Article 8 Higher education institutions implement the system of hiring teachers. The college teachers mentioned in this study are all on-the-job teachers in colleges and universities.

Innovative Learning System As a system, it refers to the need for university teachers to form a large-scale learning system in the overall development of education and teaching through comprehensive considerations, and provide creative improvement directions. In this study, specific indicators for cultivating and evaluating innovative learning for university teachers were summarized through surveys on their age, gender, education background, income, academic background, department, major, professional title, teaching level, as well as relevant government policies and school measures.

Innovation Consensus Innovation consciousness refers to the motivation of people to create unprecedented things or concepts based on the needs of society and individual life development, and the intentions, wishes, and ideas expressed in creative activities. In this study, the innovative consciousness of university teachers is a necessary requirement for creative talents. It requires university teachers to change their traditional way of thinking, and to change their traditional way of asking questions, forming or improving new ways of thinking.

Innovation Skills Innovative skills generally include learning ability, analytical ability, comprehensive ability, imagination ability, critical ability, creative ability, problem-solving ability, practical ability, organizational coordination ability, and the ability to integrate multiple abilities. In this study, we aim to explore and discover what aspects of innovation skills are included in the innovative skills of university teachers in Chongqing, such as increasing innovative practical teaching and leading scientific research projects compared to general innovation skills, in order to play a supporting role in future guidelines.

Innovation Achievement In this study, the innovative achievements of university teachers refer to the application of innovative knowledge, technology, etc. to innovate in their own development and educational teaching models, improve their comprehensive strength, and create new assessment indicators for education and teaching in their work, providing new quantifiable evaluation factors for schools, students, and university teachers themselves.

Research Framework

The basic conceptual framework of this study is show in figure 1.1

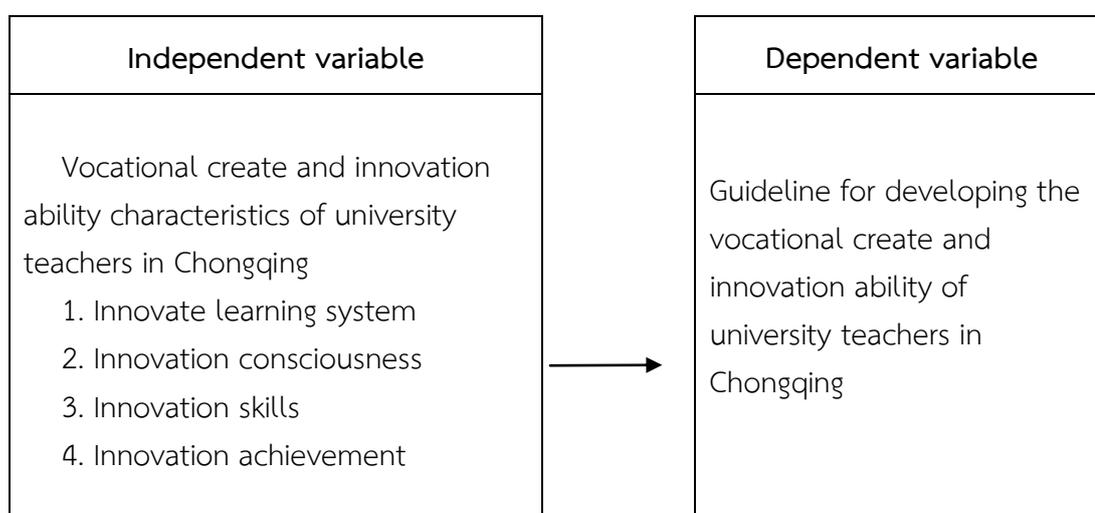


Figure 1.1 Research Framework

Chapter 2

Literature Review

This article is a guide for studying the professional creativity and innovation of university teachers in Chongqing. In this chapter, literature materials are organized and described around the research objectives proposed in Chapter 1. Mainly from the following aspects:

1. Educational Management Philosophy
2. The concept and theory of creativity and innovation
3. The Theory of Professional Creativity and Innovation of College Teachers
4. The educational background of universities in Chongqing
5. Related research

Educational Management Philosophy

Concept of Education Management

Education management refers to the coordinated activity process of allocating educational resources (including human, financial, material, time, space, and information) in a reasonable manner to effectively operate and achieve organizational goals. Educational management is a kind of management activity involving both Macromanagement and Micromanagement. It includes the education administrative management of national and local governments at all levels, as well as the internal management of universities, secondary schools, primary schools, and even preschool, adult, or vocational schools at all levels.

Yang Tianping. (2004, p.9). Education management is the application of management in the field of education, which is a specialized activity for managing or managing education. It is an activity that intersects and combines educational and management activities. On the one hand, it is related to the management of education, where education is the limitation of management, and management is the central word, forming a biased phrase; On the other hand, it also takes management as the agent and education as the subject, forming a verb object structure, that is,

management education, indicating that it is a branch or specialized field of management activities targeting educational activities.

Xu Zhanchun. (2023, p.37). He proposed that with the development of information technology, the management mode of higher education is becoming increasingly modern. The education management of new students faces many problems and limitations, and we need to take corresponding and effective measures to resolve and break through them, in order to ensure the high efficiency and quality of higher education management work. This measure is the core of modern educational management concepts.

Yang Tianping. (2004, p.14). educational management can be roughly summarized as two basic contents: one is the study of organizational theory, from individuals to groups and even organizations, from organizational design to organizational change and development, from formal organizations to Informal organization and even the unity of the two, and the other is the study of management methods, from traditional empirical management methods to classical scientific management methods, Behavioural sciences management methods Contingency science management method, Systems science management method

Overall, education management is an activity process in which managers organize and coordinate education teams, fully utilize the role of education manpower, financial resources, material resources, and other information, utilize various favorable conditions within education, and efficiently achieve education management goals. It is a series of activities organized, coordinated and controlled by the state for the education system. It is divided into educational administrative management and school management.

Educational Management Research Objectives

Lu Hui. (2013, p.7). mainly studies the management of schools, educational institutions, and non-profit organizations, understands the education system and its policies, and improves the level of understanding and management ability of managers. But currently, due to the use of multiple channels, the goals of education management are very broad.

Wu Yaogui. (2014, p.40). focuses on the role, characteristics, principles, activities, and evaluation of educational leadership in educational management research. 2) Education legislation. 3) The formulation and implementation of educational objectives and policies. 4) Education system. 5) Educational administrative organization. 6) The significance, purpose, task, system, activity, principle, and method of educational guidance. 7) Requirements, training, and performance evaluation for educational personnel. 8) Management of educational funds. 9) Specific management of school work.

Huang Zhaoxin&Huang Yangjie. (2019, p.19). Education management research includes the management of ideological and political work, teaching, scientific research, production labor, sports and health, personnel, security, general affairs, finance, books and instruments, social contact, and parental contact. In addition, it also includes the nature and tasks of the school, leadership system, organizational structure, school planning, scientific management, work principles and methods, etc.

Overall, the research goal of educational management is to enhance the understanding level and management ability of managers by improving their own qualities.

Characteristics of Educational Management

Zhang Hong. (2008, p.232). He explored the characteristics and strategies of education management in his article "Characteristics and Strategies of Education Management", emphasizing the service-oriented, public, and complex characteristics of education management, and proposed some management strategies, such as putting people first, strengthening management, and emphasizing innovation. We also believe in the characteristics and development trends of education management, emphasizing the characteristics of public, service-oriented, humanized, and diversified education management, and proposing some development trends, such as digitalization and diversification of education management.

Cheng Zhenxiang. (2016, p.63). He believed in the humanistic characteristics of education management and its practice that the professional characteristics of education management emphasized the professional, scientific, artistic and cultural characteristics of education management, and proposed some management

methods, such as scientific management, Management by objectives, etc. This article explores the humanistic characteristics and practices of educational management, emphasizing the humanization, democratization, and diversification of educational management, and proposes some practical methods, such as people-oriented, democratic management, and diversified evaluation.

Liu Jiliang. (2010, p.49). He wrote in the characteristics and development trends of education management that education management not only has the commonalities of general management, but also has its own unique personality. The characteristics of educational management include: educational nature, complexity of educational management, hierarchy of educational management, bilateral and dynamic nature of educational management, and controllability.

Overall, the official statement is that the characteristics of educational management are systematic, comprehensive, and scientific. Only education management based on these three characteristics can ensure the effective operation of schools and educational activities, and achieve educational development goals. There are significant differences between educational management and management related to various fields, so it is necessary to attach importance to it, establish and improve effective educational management systems, control educational activities, and achieve educational goals.

Educational Management Theory

Chen Xiaobin. (2003, p.372). He introduced the theoretical system and practice of educational management in his book "The theoretical system and practice of educational management", emphasized the importance, service, human nature and diversity of educational management, and proposed some management methods, such as Management by objectives, total quality management, etc. The development process and latest trends of educational management theory emphasize the characteristics of service, diversity, human nature, and development of educational management theory, and propose some future development trends and directions.

Liu Cilin. (2000, p.146). "Development and Prospects of Educational Management Theory" Classical management theory began in the early 20th century and

mainly includes two ideological trends: scientific management and administrative management. Scientific management focuses on the management of work and workers, while administrative management focuses on how the entire organization is constructed. The earliest management theories that emerged were Taylor's scientific management theory, Fayol's general management theory, and Weber's hierarchical organizational management theory, collectively known as classical management theory.

Liu Yao. (2008, p.18). "Modern Education Management Theory" General management theory has played a significant role in promoting the development of Western management theory. He believes that management theory refers to a widely recognized system of principles, standards, methods, and procedures related to management that have been tested and confirmed through universal experience. Fayol distinguished between operation and management, emphasizing management education, and proposed the famous 14 management principles.

Tao Xiping. (2012, p.37). In the field of "Educational Management", the theory of hierarchical organizational management is also an ideal theory of administrative organizational system. It is a standardized and ideal theoretical research paradigm established by Weber. This theoretical research paradigm holds that any organization is based on a certain amount of power, and that power is the foundation in order to achieve the established goals of the organization. Weber believed that apart from the power of reason and law, neither traditional nor extraordinary power can become the foundation of an ideal administrative organization.

Generally speaking, the theory of education management tends to classical management theory, interpersonal relationship theory, Behavioural sciences theory, open system management theory and management theory. With the improvement of productivity and the development of science and technology, these management theories have guiding significance for the formation and development of educational management theories and practical activities of educational management. The above literature covers the theoretical system, practical methods, characteristics, and development trends of educational management, and has great reference value for educational managers and practitioners.

The Concept and Theory of Creativity and Innovation

The Concept of Creativity and Innovation

Oseph Alois Schumpeter. (2009, p.15). The term "Innovation" originates from Latin, and the Merriam Webster's Collegiate Dictionary states that the term has three meanings: update, change, and creation. In 1912, Joseph Alois Schumpeter put forward the "Innovation Theory" for the first time in his book "Economic Development theory". Peter F. Drucker then clearly put forward that innovation is the daily work and basic responsibility of managers and knowledge workers.

Li Shuwen. (2006, p.2). She proposed in his book "Methodology of Innovative Thinking" that innovative ability refers to the ability of humans to creatively discover, propose, analyze, and solve problems. It is the ability of humans to apply knowledge and theory to continuously provide new ideas, theories, methods, and inventions in various fields of science, art, technology, and practical activities.

Amabile, T. M. (1996, p.06). The social psychology of creativity New York: Springer Verlag. Creativity refers to the ability to generate new ideas, discover, and create new things. It is a complex and optimized combination of multiple factors such as knowledge, intelligence, ability, and excellent personality traits. Creativity requires a high level of physical and intellectual tension, as well as creative thinking at the highest level.

Mumford, M. D., & Geisler, F. T. (2012, p.75). Creativity: Theory, tests, and measurements New York: Springer Science+Business Media. Creativity is an independent and autonomous ability that is not constrained by any rules and regulations. It is free, open, and independent to think, daring to challenge tradition, break through limitations, discover problems, and find solutions to problems. Exploring the concept, theory, measurement, and methods of creativity from different perspectives is an important reference for studying creativity.

Overall, the concept of creativity refers to the ability to generate new ideas, discover and create new things. It is a complex and optimized combination of multiple factors such as knowledge, intelligence, ability, and excellent personality traits. Creativity is a series of complex and high-level psychological activities that

require a high level of physical and intellectual tension, as well as creative thinking at the highest level.

Characteristics of Creativity and Innovation

Wei Rongfan. (2010, p.4).The characteristic of innovative ability of university teachers refers to the dialectical unity between the innovative ability that university teachers should possess and the dialectical relationship between innovative ability established from different perspectives based on the inevitable requirements of university teacher profession. It includes three aspects: 1) It helps to broaden and deepen the research on the theory of innovative characteristics of university teachers. 2) What kind of innovation is beneficial for university teachers. 3) The research on the path of promoting the role of university teachers' innovation is beneficial. The focus of university teachers' innovation is on the issue of their role.

Wei Rongfan. (2010, p.6). The study of the innovative characteristics of university teachers can broaden the theoretical research on the innovative characteristics of university teachers. The academic community generally places more emphasis on the study of the characteristics of innovation power among scientific and technological researchers, or explores the characteristics of innovation power in a general sense, which is the study of the common issues of innovation power. However, the research on the characteristics of innovation power of university teachers is still relatively weak.

Zhao Yuhao. (2019, p.75). The characteristics of creativity and creativity cultivation literature points out that creativity is the ability to generate novel, unique, and valuable ideas, solutions, products, and skills, with characteristics such as fluency, flexibility, originality, precision, innovation, courage, perseverance, endurance, concentration, association, and reverse thinking.

Mumford, M. D., & Geisler. (2012, p.8). argue that creativity has the following characteristics: uniqueness: creativity refers to the generation of unique ideas and things, with a unique perspective and way of thinking. Openness, variability, and diversity: Creativity has diversity and diversity, including different ways of thinking, cultural backgrounds, knowledge, and skills. Practicality: Creativity is not only

theoretical thinking and imagination, but also requires practicality and operability, which can be transformed into practical applications and achievements.

In short, creativity is a highly complex and comprehensive ability that requires continuous exploration and practice in order to constantly generate new ideas and things, and promote the development and progress of human society. For example, methods for cultivating creativity were proposed, including stimulating motivation, lifting constraints, heuristic education, divergent thinking training, personality development, emphasizing practice, facing failure, and creative thinking training. These literature can help us gain a deeper understanding of the characteristics of creativity and how to cultivate it.

The Theory of Creativity and Innovation

Schumpeter. (2008, p.124). was first proposed by the famous economist Joseph Schumpeter in his book *Development theory* published in 1912. Its connotation is to introduce a new combination of production factors and conditions into the existing production system, so as to change and develop the production system and corresponding economic links.

Xu Yiwen. (2003, p.239). holds that the current popular viewpoint in China regarding innovation ability refers to the ability of humans to creatively discover, propose, analyze, and solve problems. It refers to the ability of humans to apply knowledge and theory to continuously provide new ideas, theories, methods, and inventions with economic, social, and ecological value in various fields of science, art, technology, and practical activities, It is a comprehensive ability that includes human cognitive and practical abilities.

Lin Chongde. (2000, p.25). wrote in his book "Psychology of Creativity" that creativity theory refers to the study and interpretation of creativity, with many different theoretical schools and viewpoints. For example, 1. Psychodynamics theory 2. Theory of Cognitive psychology 3. Theory of Humanistic psychology 4. Surge theory 5. Cognitive Development theory 6. Social and cultural theories explain the emergence, development, and expression of creativity from different perspectives, which has important guiding significance for understanding creativity, cultivating creativity, and improving the level of creativity.

In short, the cultivation of innovative talents cannot be separated from the innovation of education, and its fundamental lies in the innovation and construction of the teaching staff. Specifically, the innovation ability of applied undergraduate university teachers mainly includes learning innovation ability, teaching reform ability, applied research ability, and social service ability, which are reflected in basic elements such as innovation consciousness, innovative thinking, innovative practice, teaching practice, scientific research practice, team collaboration ability, and self-learning ability.

The Concept and Theory of Professional Creativity and Innovation of College Teachers

The Concept of Professional Creativity and Innovation of College Teachers

Yang Yuhao. (2010, p.126). Innovation ability of university teachers refers to the ability of university teachers to apply innovative and unique insights into education, teaching, and scientific research, discover effective educational and teaching methods, and generate research results that promote social development. Innovation and entrepreneurship education in universities is a higher education activity that aims to improve the quality and skills of students' innovation and entrepreneurship, and promote the comprehensive development of college students as its core goal. It is restructured in various aspects such as curriculum structure system setting, faculty building, teaching mode, and quality evaluation, in order to adapt it to the development of an innovative society.

Li Xiaohong. (2013, p.54). She wrote in the article "The improvement of university teachers' innovation ability: based on the perspective of psychology" that we can discuss the improvement of university teachers' innovation ability from the perspective of psychology, and improve the innovation ability by cultivating teachers' positive emotions, improving self-confidence and changing the way of thinking. The relationship between innovation and career development of university teachers is of great importance for their career development and promotion.

Yang Haiyan. (2015, p.87). The cultivation and development of innovation among university teachers need to be promoted through providing a good working

environment, supporting teachers' personal interests and creativity, and strengthening training and communication to enhance their innovation. A set of evaluation criteria including teaching innovation, scientific research innovation, service innovation, and other aspects has been proposed for evaluating the innovation ability of university teachers.

In short, University teachers are the main body of cultivating innovative talents, and their comprehensive qualities such as knowledge and ability determine the effectiveness of cultivating innovative talents in higher education. The competence of university teachers is closely related to and interacts with the cultivation of innovative talents, and there is a positive incentive relationship between them. By analyzing key implementation factors such as the knowledge system that affect teacher competence.

The Characteristics of Professional Creativity and Innovation of College Teachers

Tang Yusheng. (2020, p.58). The characteristics of the professional creativity and innovation of university teachers mainly include the following aspects: academic: The professional creativity and innovation of university teachers should first be reflected in their academic research ability, followed by education and teaching, social services, cultural inheritance, and finally internationalization, including communication and cooperation with international peers, participation in international academic conferences, development of international courses, etc., to promote international exchange and cooperation.

Wei Zheng, Zhou Qian. (2018, p.91). The characteristics of innovation among university teachers mainly include academic innovation, teaching method innovation, technological innovation, cultural innovation, and team cooperation. These characteristics help university teachers promote innovation in education, teaching, scientific research, and social services, and contribute to the development of individuals and society.

Ma Hui, Zhang Ning. (2020, p.131). Creativity is the ability of creators to generate new, unique, and unique ideas or things, characterized by uniqueness,

transformability, practicality, flexibility, and fluency. These characteristics make creativity play an important role in the development of human civilization.

In short, creativity in universities helps promote innovation in education, teaching, scientific research, and social services, contributing to the development of individuals and society.

The Theory of Professional Creativity and Innovation of College Teachers

Ran Lurong. (2018, p.55). The innovation and entrepreneurship background of poses new requirements for the competence of university teachers. Using behavioral event interviews to obtain first-hand information, and through Grounded theory research methods, this paper explores the characteristics of college teachers' competency in the context of innovation and entrepreneurship. This includes 14 dimensions including teacher quality, innovation consciousness, teaching, research, and interactive relationships, and proposes practical suggestions for adhering to teacher quality, enhancing innovation consciousness, improving teaching and research abilities, and enhancing interactive relationships.

Dai Jun and Zhang Lifen. (2014, p.84). Based on the theory of knowledge management and the functions of universities, pointed out that the innovation ability of university teachers mainly includes teaching innovation ability, scientific research innovation ability, social service innovation ability, and cultural inheritance innovation ability.

Chen Jin, Qu Xiaojun. (2019, p.16). As knowledge imparters and innovation practitioners, university teachers' innovation consciousness, and ability play a crucial role. The innovative consciousness of university teachers mainly includes aspects such as innovative thinking, innovative ability, and innovative spirit. A Study on the Innovative Consciousness of University Teachers and Its Influencing Factors Exploration and research in higher education.

Chen Jiang. (2016, p.17). By analyzing data on the connotation, evaluation and measurement, influencing factors, cultivation and improvement of innovation ability, the current research status and development direction of innovation ability were analyzed.

Chen Kaiyan. (2007, p.39). He suggested that the innovation ability of university teachers should be improved from many aspects, such as cultivating innovation consciousness, improving knowledge structure, strengthening the construction of teaching staff and reforming the management system.

Yang Yuhao and Su Xiongwu. (2014, p.55). They are pointed out that the innovation ability of university teachers consists of four dimensions: knowledge accumulation, change seeking awareness, innovation atmosphere, and balance. They also proposed ways to improve the innovation ability of university teachers from aspects such as scientific research and teaching training, knowledge accumulation, atmosphere creation, moral education, and psychological counseling.

Zhang Siqi, Gao Linlin. (2019, p.20). Innovative learning methods, innovative learning technologies, innovative learning strategies, innovative learning environments, innovative learning modes, innovative learning evaluations, innovative learning applications, and innovative learning research are all components of the innovative learning system. Further deepening research and understanding of the innovative learning system is necessary to build a more effective innovative learning environment and mode, and cultivate more talents with innovative consciousness, and practical abilities.

Overall, the innovation and entrepreneurship background in Chongqing has put forward new requirements for the quality of university teachers. Adhering to improving the quality of teachers, enhancing innovation consciousness, improving teaching and research abilities, enhancing interactive relationships, strengthening the construction of teaching staff, and reforming management systems are currently common methods that are more applicable in Chongqing.

The Educational Background of Universities in Chongqing

Ou Jie & Yang Jun. (2013, p.89). Chongqing is deeply implementing the strategy of "revitalizing Chongqing through science and education and strengthening the city with talents". The scale development and quality improvement of high-level talents are currently important tasks for higher education in Chongqing. As the core influencing factor of this task, the teaching team bears the important task of

cultivating talent's innovation ability, academic skills, and moral qualities. For universities, to cultivate outstanding talents, first and foremost, first-class teachers are needed. This is the key to ensuring high-level and high-quality teaching in universities. Therefore, guided by the development of the difficulty and importance of improving the construction and management of the teaching staff, scientifically formulating long-term plans for the teaching staff in universities is an important measure for Chongqing to build a high-quality teaching staff. The development and construction plan of the teaching staff in universities should be combined with the needs of national and local socio-economic development, and based on the actual development of higher education in Chongqing, planned expansion of teacher sources, absorption of high-level leaders, targeted training of reserve teachers, reasonable allocation of team size, echelons, and structure, and provide scientific basis for creating a sufficient and high-quality teaching staff in universities.

Mao Huixiang & Wuyue. (2016, p.109). Mao Huixiang think that local undergraduate universities in Wuyue are a new type of university that has emerged with the popularization of higher education and is a cradle for cultivating innovative talents. Local undergraduate universities account for 70% of the national undergraduate universities, and their development is crucial for the cultivation of high-quality innovative talents in China. Many local undergraduate universities have positioned themselves as 'applied undergraduate education', in order to cultivate more suitable applied talents for the development of modern society and take serving society as their own responsibility. Local undergraduate universities not only shoulder the heavy responsibility of cultivating regional talents in the local area, but also provide competitive talents in various aspects for China's modernization development, which fully demonstrates the significant responsibility of local undergraduate universities in China.

Yu Juanjuan. (2014, p.15). As of 2021, the proportion of teachers under the age of 40 in the total number of full-time teachers in Chinese universities has reached around 62%. According to the latest statistical data released by the Ministry of Education in July 2015, there are more than 15.41 million college students and 1.53 million master's students. There are 1.53 million full-time teachers in ordinary

universities, including 220000 teachers under the age of 29, 357000 teachers aged 30-34, and 292000 young teachers aged 35-39. It can be seen that there are a total of 872000 university teachers under the age of 40, accounting for about 57% of the total number of full-time teachers. The high proportion of full-time teachers in higher education institutions is sufficient to prove that university teachers are the new force of universities, related to the future of talent cultivation, the direction of university development, and the success or failure of education.

Chongqing Statistical Yearbook. (2013, p.325). Chongqing: China Statistical Publishing House, 2013, and other articles. According to data, Chongqing has an area of 82400 square kilometers, a population of 30.17 million, and a per capita GDP of 52103 yuan. In 2021, there will be a total of 16 regular undergraduate universities. There are 21097 teachers, 5398 doctoral students, 42286 master's students, and 322623 regular undergraduate students. In the "Outline of the National Medium and Long Term Education Reform and Development Plan (2010-2020)", it is also proposed to build Chongqing into an education highland in the western region and an education center in the upper reaches of the Yangtze River by 2020, achieving urban-rural education integration, education modernization, and education internationalization. Although higher education in Chongqing has a certain foundation, due to historical reasons and objective conditions, there is a significant gap in both quantity and educational level, especially in the construction of the teaching staff, which is no longer suitable for the construction of the western education highland in Chongqing. For this reason, Chongqing has made the construction of university teacher teams one of the top ten key projects. On the basis of understanding the management status of teacher resources in local universities in Chongqing, analyzing the existing problems and proposing improvement and improvement measures is crucial for researching and formulating future development strategies and countermeasures for education in Chongqing and other areas.

Overall, 72 universities in Chongqing are currently in a stage of continuous development. Expanding the source of teaching staff in a planned manner, cultivating reserve teachers in a targeted manner, and allocating the scale of the team in a reasonable manner are very important research and development directions for providing scientific basis for the construction of university teaching staff.

Through research guidance and practice, it will inevitably have a significant impact on the current professional creativity and innovation of university teachers in Chongqing.

Related Research

Mao Huixiang & Wu Yue. (2016, p.52). Research on the Development of Innovative Ability of Local Undergraduate University Teachers, The innovation ability of teachers is mainly manifested in two aspects: teaching innovation ability and scientific research innovation ability. In addition, it is also reflected in innovative thinking ability, innovative consciousness, innovative practice ability, and team collaboration ability. Local undergraduate universities have faced various transformation needs since their development. One is the transformation of educational ideas, which should shift from traditional educational ideas to diversified directions. The second is the transformation of educational objectives. Local undergraduate universities should not only achieve the long-term development goals of the school, but also provide talent support for the local economic development, laying a solid foundation for economic development. The third is the transformation of educational tasks, which not only fully utilizes various local resources, but also requires the support of all parties. The transformation of local undergraduate colleges and universities not only means the transformation of the school itself, but also requires teachers to adapt to the development of society in the process of education and teaching, follow the pace of the times, strengthen their adaptability and innovation ability, change their teaching model at the right time, find out coping strategies, so as to better train students and smoothly realize the transformation and development of college teachers. Therefore, in the development process of local undergraduate universities, the innovation ability of university teachers plays an important role.

Yang Kai & Huang Shitong. (2021, p.62). Research on the Identification and Development Model of Innovative Ability of Young Teachers in Universities. The innovative ability of young teachers in universities is an important factor characterizing their development. The article takes young university teachers and related personnel as the research object, and uses data analysis methods to

construct a theoretical design and development model for the innovation ability advantages of young university teachers. Among them, innovative ability includes four aspects: innovative thinking, innovative spirit, personal ability, and professional knowledge. Based on the ideal point utility function, a development model for innovative ability of university teachers is constructed, and three development models are obtained: innovative spirit oriented, personal ability oriented, and innovative thinking oriented. From the perspective of self quality cultivation and improvement of constraint and incentive mechanisms, reference is provided for the management of young university teachers.

Wang Minzhi. (2014, p.38). As the main guide of college students' innovation and entrepreneurship training, under the opportunity of "Internet plus" and the era of innovation and entrepreneurship, how can college teachers better improve their own quality in scientific research and teaching, which is thought-provoking. At present, some Chinese scholars have theoretically constructed and elaborated on the composition, current situation, and reasons of innovative abilities of university teachers from the perspectives of the functions of universities and the tasks of teachers. Some scholars have conducted specialized theoretical analysis on how to cultivate and enhance the innovation ability, especially teaching innovation ability, of university teachers.

Zhao Chen & Wang Liuxing. (2017, p.39). Argue that the innovative ability of university teachers can effectively alleviate the contradiction between teaching and research, and achieve a balance between the two. The main theoretical contribution of this article is to identify the elements of innovative ability possessed by university teachers, and construct development models and methods, providing ideas for cultivating young talents in universities. As the birthplace of new knowledge, new ideas, and new technologies, universities bear the important task of cultivating various specialized talents for the country. As the backbone and core force of the teaching staff in universities, young teachers' innovative ability is the key to the quality of teaching and the cultivation of innovative talents. By analyzing the current situation and existing problems of cultivating the innovative ability of young teachers

in universities, it is proposed to strengthen the cultivation of innovative ability of young teachers in universities.

Chen Lierong & Zhong Yongqiang. (2009, p.124). Local undergraduate university teachers have a strong demand for the development of their own innovative abilities, hoping to improve their teaching and research innovation abilities. In fact, the innovation ability of teachers in most local undergraduate universities is relatively low, which is mainly reflected in the following aspects: firstly, some teachers use teaching and research as a means of livelihood. They have long maintained traditional teaching concepts and the idea of 'seeking neither advantages nor disadvantages'. Lack of rigorous research attitude, inability to think from multiple perspectives based on actual situations, and inability to find innovative points. Secondly, we cannot break through tradition and reform educational innovation concepts. Many teachers still follow traditional teaching methods, only focusing on knowledge infusion, not paying attention to changes in teaching methods, and even not knowing how to innovate methods. Thirdly, the speed of knowledge updating is slow. Teachers have insufficient knowledge reserves and cannot keep up with the times to supplement their knowledge, resulting in slow knowledge updates and inability to flexibly respond to new situations.

Wang Liang & Liu Chengge. (2019, p.22). Analyze the reasons for the weak innovation ability of university teachers as follows: 1) the development of higher education in China has always focused on teaching, supplemented by scientific research. In addition, the reality of limited funds makes it difficult to meet the needs of cultivating innovative students with strong innovative abilities and adapting to the rapid development of modern society. 2) the quality of teachers is uneven, and their abilities are uneven. 3) the distribution of teachers is uneven, and the proportion of teachers in urban and rural areas is uneven. For example, the rural population in China accounts for the majority of the population, which makes the proportion of rural teachers significantly higher than that of urban teachers. The difference in resources and environment occupied by teachers is also one of the reasons for the inconsistent development of teachers' innovation ability.

Table 2.1 Partial Literature Review Related to Research Objectives

Author	The Current Situation of Professional Innovation Ability of University Teachers	Guidelines for Improving the Professional Innovation Ability of University Teachers	Evaluation of Guidelines
Mao Huixiang 2016	√	√	√
Xu Yiwen 2003	√	√	√
Yu Juanjuan 2014	√	√	
Wang Liuxing 2017	√		√
Gao Linlin 2019	√		
Tang Yusheng 2020	√	√	
Li Shuwen 2006	√		
Yang Jun 2013	√	√	
Ma Huixiang 2020	√		
Lin Chongde 2000	√	√	√
Dai Jun 2014	√		
Zhao Yuhao 2019	√		√
Qu Xiaojun 2019	√	√	
Chongqing Statistical Yearbook 2013	√		
Total	14	7	5

Based on the literature review and research depth, references related to the three research objectives have been summarized as above. At present, there is a lot of research on the current situation of professional innovation ability of university teachers, and there is no complete matching of relevant improvement guidelines. However, half of them can be used for reference, and the evaluation research on the guidelines is the least.

Table 2.2 Literature Review on Some Factors Influencing the Professional Creativity of University Teachers

Author	Innovative learning system	Innovation consciousness	Innovation Skills	Innovation achievements	Innovative behavior	Innovation policies	Innovation mode	Innovation drive	Innovation environment
Wei Rongfan 2010		√			√				
Xu Yiwen 2003			√	√		√			
Wang Liuxing 2017							√		
Yang Haiyan 2015	√							√	
Tang Yusheng 2020			√	√					
Li Shuwen 2006	√	√							
Wei Zheng 2018			√						√
Ma Huixiang 2020				√					
Lin Chongde 2000	√					√			
Dai Jun 2014		√							
Zhao Yuhao 2019	√			√			√		
Qu Xiaojun 2019		√			√				
Yang Yuhao 2014	√		√						
Total	5	4	4	4	3	2	2	1	1

According to the literature review and research depth, only the first four items with more attention were selected as the research variables of this paper, so the variables studied in this paper included innovative learning system, innovation consciousness, innovation skills and innovation achievements.

Chapter 3

Research Methodology

This research focuses on improving the vocational creation and innovation ability of university teachers in Chongqing. The researchers have the following procedures.

1. Research type
2. The population / the sample Group
3. Research Instruments
4. Data Collection
5. Data Analysis

Research Type

The research purpose of this thesis involves theory and evaluation, so the research adopts a mixed research method. In this study, the main research purpose is: 1) To study the current situation of vocational creative and innovation ability of university teachers in Chongqing. 2) To provide the guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing. 3) To evaluate the adaptability and feasibility of guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing. According to the actual research purpose and research methods, quantitative and qualitative research methods are finally adopted according to the nature of the research. Meanwhile, according to the interview method in the process of the investigation, descriptive research is also used at the same time.

Quantitative research is a process of collecting data or information expressed in quantity and conducting quantitative processing, testing and analysis on the data so as to obtain meaningful conclusions. In this study, the dimensional questions in the questionnaire of Chongqing university teachers are subdivided through the questionnaire. The characteristic values of vocational innovation ability of Chongqing university teachers are compared according to the dimensional

standard, which answer the quantitative attributes of things and their movements. It is completely carried out through data comparison, so quantitative research is adopted.

From the logic of research, qualitative research and descriptive research are essentially an induction process, such as concluding general conclusions from sample interview surveys. Qualitative research and descriptive research focus on and rely on the description and understanding of the meaning, characteristics, metaphors and symbols of college teachers' creativity in the sample group. It is also a way or perspective of looking at things from their intrinsic prescriptive nature. Based on the truth or fact recognized by most sample groups, it describes and explains the innovation ability of college teachers studied from the perspective of commonness and individuality. Qualitative and descriptive research will be temporarily omit homogeneity on the number of differences, also is the best complement to quantitative research, plan, purpose, a direction, has a detailed outline of research, collect data mainly adopts closed questions and open questions of interview, questionnaire survey is given priority to, do the samples with the research data shows that the overall situation.

The population / Sample Group

The Population

The total population of this study is 50007 teachers from 71 colleges and universities in Chongqing. Sample groups are selected according to Yamane Taro sample scale, and 397 teachers from colleges and universities in Chongqing are finally selected as research objects. Samples are random sample from 10 colleges and universities according to professional classification.

The Sample Group

In the whole sample group, due to the large number of colleges and universities in Chongqing, 50007 college and university teachers are a huge number. In order to further study the relationship between creativity and innovation ability and individual college and university teachers, all 71 colleges and universities are

divided according to the jurisdiction category, and then further divided into quantitative sample extraction and qualitative sample extraction.

Step 1 Dividing sample group areas

Firstly, the undergraduate colleges in Chongqing are classified according to the categories of colleges and universities, and the sampling group of college teachers is also classified according to the same method. There are 3 military colleges and universities, 2 universities affiliated to the Ministry of Education, 15 universities affiliated to Chongqing Municipality, 9 universities under the administration of Chongqing Education Commission and 42 vocational colleges and universities of all kinds (information from Chongqing Education Commission 2021 Yearbook).

Table 3.1 Category of Universities in Chongqing

No.	Category	Q	Name of University
1	Military colleges and universities	3	Army Medical University, Army Service College, Army Engineering University Communication Officer School
2	Under the Ministry of Education	2	Chongqing University, Southwest University
3	Universities belonging to Chongqing	15	Chongqing University of Posts and Telecommunications, Chongqing Jiaotong University, Chongqing Medical University, Chongqing Normal University, Southwest University of Political Science and Law, Sichuan International Studies University, Chongqing University of Technology, Chongqing Technology and Business University, Chongqing University of Arts and Science, Yangtze Institute, Chongqing Police College, Sichuan Fine Art

Table 3.1 (Continued)

No.	Category	Q	Name of University
4	Universities in charge of Chongqing Education Commission (undergraduate)	9	Chongqing Vocational University of Mechanical and Electrical Technology, Chongqing College of Humanities and Technology, Chongqing City Institute of Science and Technology, Chongqing University of Foreign Languages and Foreign Affairs, Chongqing University of Finance and Economics, Chongqing Yitong College, Chongqing Institute of International Business and Economics, Chongqing Institute of Engineering, Chongqing Technology and Business University Pais College
5	Colleges and universities in charge of Chongqing Education Commission (junior college)	42	Chongqing Electronic Engineering Vocational College, Chongqing Industrial Vocational and Technical College, Chongqing Urban Management Vocational College, Chongqing Engineering Vocational and Technical College, Chongqing Electric Power College, Chongqing Vocational and Technical College of Industry and Commerce, Chongqing Aerospace Vocational and Technical College, Chongqing Three Gorges Medical College, Chongqing Three Gorges Vocational College, Chongqing Medical College, Chongqing Industrial and Trade Vocational and Technical College, Heavy Qingcheng City Vocational College, Chongqing Water Conservancy and Electric Power Vocational and Technical College, Chongqing Youth Vocational and Technical College, Chongqing Vocational College of Finance and Economics, Chongqing Vocational College of Architectural Engineering, Chongqing Vocational College of
Total		71	

Step 2 Sample proportion of qualitative research and quantitative research

Based on the actual proportion, the average value is used to determine the specific number of samples divided by category after the total number of samples is counted.

Table 3.2 The Proportion of Quantitative and Qualitative Samples Extracted

Category	Category of universities	Quantity	proportion
N1	Military colleges and universities	3	0.04
N2	Universities under the Ministry of Education	2	0.03
N3	Universities belonging to Chongqing	15	0.21
N4	Universities in charge of Chongqing Education Commission (undergraduate)	9	0.13
N5	Colleges and universities in charge of Chongqing Education Commission (junior college)	42	0.59
Total		71	

Step 3 Stratified Sampling of Qualitative Research Sample Group

Qualitative research mainly adopts hybrid interview, that is, structured interview: the interviewer makes a list of formatted questions in advance, the basic questions and exploratory questions are the same for all interviewees, and the interview content is controlled on the predetermined theme and unstructured interview: There is no predetermined format for the conversation between interviewers and interviewees. The topics of the interview may be broad and different questions may be raised for different interviewees.

For the surveyed college teachers, sample sampling for quantitative analysis can be random samples, but for qualitative research, stratified sampling is required. College teachers are divided into five subpopulations according to the school

category, each of which is called a layer. Then, a subsample is extracted from each layer, and these subsamples together form the sample of the whole. Such as the average age (under 40, 41-49 and 50-59 respectively); Education (bachelor's degree and master's degree in percentage of the total); Grade of professional title (junior title, intermediate title, senior title, percentage of total title, etc.); Whether to serve as a postgraduate supervisor; College teachers' majors (science and engineering, liberal arts, economics and management, humanities and social sciences and arts, tourism management, education management, linguistics, law, philosophy, and other medical disciplines including clinical, respectively, account for the proportion of the total number of teachers).

Step 4: Remarks of the Sample Group

In this study, questionnaire survey is adopted for quantitative study, while interview survey is adopted for qualitative study. In these two methods, the outline of questionnaire and interview needs to be designed in advance, and the information needs to be informed in advance when the sample is preached.

1. Sign relevant informed consent with the sample.
2. Samples have the right to know the authenticity of such questionnaires.
3. The sample is informed and willing to actively participate in the research.
4. Willing to sincerely answer relevant survey questions.
5. If the use of written records and recordings must be approved by the sample.
6. Qualitative research interview methods can be divided into closed interview and open interview. Participants need to have clear expression and communication ability.
7. Both sides of the researcher sample should pay attention to their behavior, and they should treat each other with sincerity, enthusiasm, modesty and politeness.

Step 5 Number of Sample Groups

The Sample Size for Quantitative Research

Among 71 ordinary higher education institutions in Chongqing, there are 29 undergraduate colleges and 42 vocational (Vocational) colleges. The proportion of

research personnel in universities in Chongqing has increased to 55%, and the proportion of teachers under the age of 45 has increased to 73%. In terms of quantity, the number of full-time teachers in universities has increased by 24% compared to 2015, reaching 50007. This study takes 50007 university teachers in Chongqing in 2022 as the total population. The number of quantitative samples extracted using Yamane universal samples is 397.

Table 3.3 Sample Size for $\pm 3\%$, $\pm 5\%$, $\pm 7\%$ and $\pm 10\%$, Precision Levels where Confidence Level is 95% and $P=.5$.

Size of Population	Sample Size (n) for Precision (e) of:			
	$\pm 3\%$	$\pm 5\%$	$\pm 7\%$	$\pm 10\%$
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
>100,000	1,111	400	204	100

a = Assumption of normal population is poor (Yamane, 1967). The entire population should be sampled.

Sample Size of Qualitative Research:

The National Centre for Research Methods, part of the Economic and Social Research Council, the main funding agency for sociology in the UK, has published a paper called: How many qualitative interviews is enough? This article is not an epistemological, methodological analysis or re-study of ethnographic masterpieces, but an interview with 14 scholars who are good at qualitative methods, such as scholars from the United States: Howard S. Becker, the famous representative of Chicago School, Norman Denzin, the contemporary veteran of symbolic interaction theory, Charles C. Ragin, the pioneer of qualitative comparative analysis (QCA), and scholars from the UK: Daniel Miller, a professor at University College London who has a reputation in consumer and cultural studies; Les Beck, Professor of Sociology at Goldsmith College, University of London and a master of music sociology; Julia

Brannen, known for her mixed Research Methodology and discussed in the International Journal of Social Research Methodology. Finally, Patricia A. Adler and Peter Adler, authors of "Membership Roles in Field Research," give graduate students A recommendation of 12 to 60, with an average of 30. Compared with the quantitative sample data of 397 people, this quantity assessment is also more appropriate. Therefore, the qualitative sample using interview method is finally determined to be 30 people.

The Adaptability and Feasibility Assessment Team Sample Size of the Guidelines

Evaluation of the Guidelines for the Development of Career Creation and Innovation Ability of College Teachers in Chongqing, selecting 5 experts and teachers who have achieved outstanding results in the field of innovation and entrepreneurship in universities in Chongqing. Evaluate the development guidelines for professional creativity and innovation ability of university teachers in Chongqing through expert evaluation forms, and then evaluate the adaptability and feasibility of the guidelines through data analysis. The basic conditions guaranteed by the expert team are as follows: 1) At least 10 years of university work experience. 2) I have outstanding experience and achievements in the development of creativity and innovation among university teachers. 3) All professional titles are associate professors or above.

Step 6 Sampling Universities

According to the category and proportion of universities, the following universities were selected from 71 universities in Chongqing:

Table 3.4 Sample of School

Project	Category	Proportion	School Name
N1	Military universities	0.04	Army Medical University
N2	Universities under the Ministry of Education	0.03	Chongqing University
N3	Chongqing Municipal Universities	0.21	Chongqing University of Posts and Telecommunications, Chongqing
N4	Chongqing Municipal Education Commission in charge of universities (undergraduate)	0.3	Pais College of Chongqing Technology and Business University, Chongqing Electronic engineering Vocational College, Chongqing Industrial Vocational and Technical
N5	Universities (junior colleges)	0.59	Chongqing Engineering Vocational and Technical College, Chongqing Electric Power College

Step 7 Sampling Quantity of Questionnaire Survey Samples

Based on the sampling ratio of a total population of 50007 university teachers and a sample of 71 universities, the final sample data for the questionnaire survey is determined as follows:

Table 3.5 Sample Size of Questionnaire Survey

Category	Proportion	Population
Military universities	0.04	17
Universities under the Ministry of Education	0.03	11
Chongqing Municipal Universities	0.21	84
Chongqing Municipal Education Commission in charge of universities (undergraduate)	0.13	50
Chongqing Municipal Education	0.59	235
Total	397	

Step 8 Sampling Quantity of Interview Survey Samples

Based on the sampling ratio of a total population of 50007 university teachers and a sample of 71 universities, the final sample data for the interview survey is determined as follows:

Table 3.6 Number of Interview Survey Samples

Project	Category	Proportion	Population
N1	Military universities	0.04	1
N2	Universities under the Ministry of Education	0.03	1
N3	Chongqing Municipal Universities Chongqing Municipal Education	0.21	6
N4	Commission in charge of universities (undergraduate) Chongqing Municipal Education	0.13	4
N5	Commission in charge of universities (junior colleges)	0.59	18
Total			30

Research Instruments

Questionnaire

The instrument to collect the data for objective one, to study the current situation of vocational creative and innovation ability of university teachers in Chongqing. The questionnaire designed based on innovative leadership mainly includes the following four aspects: innovative learning system, innovative consciousness, innovative skills, and innovative achievements.

The questionnaire is divided into two parts:

Part 1: Collect personal information of respondents by gender, age, professional title, etc

Part 2: Investigation on the Professional Creativity and Innovation of College Teachers in Chongqing

There are 12 questions for the survey of creative learning system and 8 questions for the survey of innovation consciousness; 12 questions for innovation skills survey; Eight questions are used for innovation survey. Add 2 open-ended questions, totaling 42 questions. The questionnaire was statistically analyzed based on the Likert five point scoring method, as follows:

Table 3.7 Likert Five Point Scoring Method

NO.	Option	Score
1	Very much in line	5
2	More in line	4
3	Basically	3
4	Not quite	2
5	Very inconsistent	1

Constructing Process a Questionnaire Process

The construction process of the questionnaire were as follows:

Step 1: Analyze the theoretical concepts related to the creativity and innovation of university teachers through literature review and expert consultation.

Step 2: Propose specific items for the questionnaire. A combination of open-ended questionnaires and interviews was used to visit a small number of large

sample groups, forming the original items of the questionnaire, with a total of 42 questions.

Consult with mentors and experts again and make repeated revisions to the content based on suggestions.

Step 3: The objective consistency index (IOC) of the survey questionnaire is checked by three experts. The objective consistency index (IOC) ranges from 0.67 to 1.00.

Step 4: Modify the questionnaire based on expert suggestions.

Step 5: This survey questionnaire was first returned to 30 teachers from Chongqing universities for filling out. The reliability of the questionnaire was obtained from Cronbach's Alpha coefficient of 0.89, indicating high validity and reliability of the questionnaire.

Table 3.8 Questionnaire Reliability Analysis

NO.	variable item	Cronbach's Alpha	Number of terms
1	Innovate learning system	0.856	11
2	Innovation consciousness	0.888	10
3	Innovation skills	0.913	11
4	Innovation achievement	0.903	10
Average		0.89	

From the Reliability Analysis table, it can be concluded that Cronbach's Alpha test is used to verify reliability and novelty. From the above table, it can be seen that the Cronbach's Alpha value is 0.89, which is greater than 0.8, indicating that the research data is very suitable for extracting information and has high reliability.

Step 6: Conduct a questionnaire survey on 397 teachers from 10 universities in Chongqing.

Structured Interview

The instrument to collect the data for objective two, to provide the guidelines for developing the vocational creative and innovation ability of university

teachers in Chongqing. This study mainly follows the following steps to establish an interview study:

Step 1 Establish an outline for the interview

Based on the four variables of the survey questionnaire "Investigation on Creativity and Innovation Ability of College Teachers in Chongqing", an interview outline was compiled and experts were invited to further review the topic.

Step 2 Establish an interview relationship

The following matters should be noted when negotiating with university samples: Principle of Sincerity: Introduce oneself and one's own research, pay attention to the use of language, prioritize respondents' habits, follow conversation rules, and encourage respondents to actively express themselves. Voluntary principle: Respondents have the right to withdraw at any time and are not responsible for the research. Confidentiality principle: Make a clear confidentiality commitment to the interviewee.

Recording: Regardless of whether the interviewee is willing to accept the recording or not, the interviewer must seek their opinions.

Step 3 Determine the format of interview records

The best way to record is to record everything, but due to subjective influence, it can only be as objective as possible, such as using audio recordings, videos (which must be informed when establishing a visiting relationship), or combining them with on-site transcripts. Mainly including 1) Content based recording: The conversation content is the most important content, and it should be as comprehensive as possible. 2) Observational recording: scene, clothing, expression. 3) Method based recording: The results and impact of the interviewer's operating methods. 4) Introspective record: Factors such as the interviewer's personal gender, age, appearance, attitude, etc.

Step 4 Post Interview Analysis

Use methods such as text analysis, information encoding, information organization, and record writing to analyze interview content. After summarizing all collected information, merge and provide feedback on the same items, and establish

tables for registration and comparison of different information points to ensure that the items they mentioned can be recorded and displayed.

Reliability and Validity Analysis of Guidelines

Table 3.9 Table of Reliability Analysis of Guidelines Quality Evaluation

	Variable Item	Cronbach's Alpha	Number Of Terms
1	The suitable for the guideline	0.898	3
2	Adaptability of the guidelines	0.957	5
3	Feasibility of the guideline	0.943	4
Average		0.933	

From the Guidelines Quality Evaluation Analysis table, it can be concluded that Cronbach's Alpha test is used to verify reliability and novelty. From the above table, it can be seen that the Cronbach's Alpha value is 0.933, which is greater than 0.8, indicating that the research data is very suitable for extracting information and has high reliability.

Evaluation Form

The instrument to collect the data for objective three, to evaluate the adaptability and feasibility of guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing.

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

Table 3.10 Average value based on Rensis Likert (1932)

NO.	Score	level
1	4.50 – 5.00	express highest level
2	3.50 – 4.49	express high level
3	2.50 – 3.49	express medium level
4	1.50 – 2.49	express low level
5	1.00 – 1.49	express lowest level

Data Collection

The data collection for objective 1: to study the current situation of vocational creative and innovation ability of university teachers in Chongqing,as following procedured:

Step 1 The researcher issued an invitation letter requesting the collection of questionnaire data from 397 university teachers from 10 universities in Chongqing.

Step 2 The researchers distributed the survey questionnaire to 397 university teachers through both offline and online methods. A total of 397 questionnaires can be collected, accounting for 100%.

Step 3 Organize the data and analyze it using software.

The data collection for objective 2: to provide the guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing,as following procedured:

Step: 1 The researcher issues an invitation letter requesting the collection of interview data from 30 university teachers from 10 universities in Chongqing.

Step: 2 Conduct an interview based on the outline of the interview questionnaire.

StepB:3 Encode and organize the recorded interview data, and then conduct data analysis.

The data collection for objective 3: to evaluate the adaptability and feasibility of guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing, as following procedured:

Step 1: The researcher issued invitation letters to 10 experts requesting an evaluation of the Chongqing University Teacher's Guide to Professional Creativity and Innovation.

Step 2: Recycling expert evaluation form.

Step 3: Organize the data and analyze it.

Data Analysis

In the data analysis of this study, the researchers analyzed the data using the following program, as follows:

Step 1: Sample classification

Classify respondents by age group, gender, educational background, and professional title for statistical analysis.

Step 2: Questionnaire analysis

Analysis of the current situation of creativity and innovation among university teachers in Chongqing, involving: 1) innovative learning system; 2) Innovation consciousness; 3) Innovative skills; 4) Innovative achievements. Analyze the mean and standard deviation using these four variables.

Step 3: Interview analysis

The structured interview on the guidelines for improving the professional creativity and innovation of university teachers in Chongqing is mainly analyzed by Content analysis.

Step 4: Evaluate Improvement

Through the analysis of the guiding principles for professional creativity and innovation of university teachers in Chongqing, using mean and standard deviation analysis, and combining expert evaluation to improve and improve.

Chapter 4

Results of Analysis

This research is guideline for developing the vocational create and innovation ability of university teachers in Chongqing, The objectives of this research were. 1) to study the current situation of vocational creative and innovation ability of university teachers in Chongqing. 2) To provide the guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing. 3) to evaluate the adaptability and feasibility of guidelines for developing the vocational creative and innovation ability of university teachers in Chongqing. The data analysis result can be presented as follows:

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

Symbol and abbreviations

- n** Refers to Sample Group
 \bar{X} Refers to Average Value
S.D. Refers to Standard Deviation

Presentation of Data Analysis

This study adopts a mixed research method to analyze the data, using quantitative questionnaire analysis and qualitative interview analysis methods to analyze the current reality of the professional creativity and innovation of university teachers in Chongqing. It proposes directions for completing guidelines to enhance the professional creativity and innovation of university teachers in Chongqing.

Part 1: Personal information of the sample of professional creativity and innovation of university teachers in Chongqing, analyzed by school, gender, age, professional title, etc.

Part 2: Analysis of questionnaire data on the current situation of professional creativity and innovation of university teachers in Chongqing.

Part 3: Interview data analysis on the current situation of professional creativity and innovation of university teachers in Chongqing.

Part 4: Data analysis to evaluate the applicability and feasibility of the guidelines for the professional creativity and innovation of university teachers in Chongqing.

Results of Data Analysis

The details are as follows.

Part 1 Personal information of the sample of professional creativity and innovation of university teachers in Chongqing, analyzed by school, gender, age, professional title, etc.

The "Questionnaire on the Professional Creativity and Innovation of College Teachers in Chongqing" adopts two methods: online and offline. 397 questionnaires were distributed and 397 questionnaires were collected. The detailed basic information is as follows:

Table 4.1 Number and Percentage of Survey Respondents

Project	Category	No.	Percentage
School	Army Medical University	17	4.28
	Chongqing University	11	2.77
	Chongqing University of Posts and Telecommunications	48	12.09
	Chongqing Technology and Business University	36	9.07
	Chongqing Industrial Vocational and Technical College	42	10.58
	Chongqing Electronic engineering Vocational College	45	11.34

Table 4.1 (Continued)

Project	Category	No.	Percentage
	Chongqing Industrial Vocational and Technical College	42	10.58
	Chongqing Urban Management Vocational College	51	12.85
	Chongqing Engineering Vocational and Technical College	45	11.34
	Chongqing Electric Power College	52	13.10
	Total	397	100
Gender	male	171	43.07
	female	226	56.93
	Total	397	100
Age	20~30	48	12.09
	31~40	195	49.12
	41~50	136	34.26
	51~60	12	3.02
	Over 60 years old	6	1.51
	Total	397	100
Professional title	Junior professional title	92	23.17
	Intermediate professional title	197	49.62
	Deputy Senior Professional Title	56	14.11
	Total	397	100
Project	Category	No.	Percentage
	Senior professional title	21	5.29
	No professional title	31	7.81
	Total	397	100

According to Table 4.1, showed that the survey subjects are from 10 universities in Chongqing, with a fixed sample size selected proportionally, with 171 males accounting for 43.07%; There are 226 women, accounting for 56.93%, with a higher proportion of women. 48 people aged 20-30, accounting for 12.09%; 195 people aged 31 to 40, accounting for 49.12%; 136 people aged 41-50, accounting for 34.26%; 12 people aged

51-60, accounting for 3.02%; There are 6 people aged 60 and above, accounting for 1.51%, with the highest being those aged 31 to 40 and the lowest being those aged 60 and above. Among the respondents' professional title data, 92 had junior professional titles, accounting for 23.17%; 197 people with intermediate professional titles, accounting for 49.62%; 56 people with deputy senior professional titles, accounting for 14.11%; 21 people with senior professional titles, accounting for 5.29%; 31 people have no professional titles, accounting for 7.81%. The highest proportion of professional titles is intermediate professional titles, while the lowest proportion is senior professional titles.

Part 2: Analysis of questionnaire data on the current situation of professional creativity and innovation of university teachers in Chongqing.

Table 4.2 Analysis of the Average and Standard Deviation in four aspects of Professional Creativity and Innovation Ability of College Teachers in Chongqing

(n=397)					
N0.	Project	\bar{X}	S.D.	level	rank
1	Innovate learning system	3.18	0.81	Medium	4
2	Innovation consciousness	3.34	0.76	Medium	1
3	Innovative skills	3.27	0.65	Medium	2
4	Innovation Achievement	3.24	0.79	Medium	3
Total		3.26	0.75	Medium	

According to Table 4.2, The average and standard deviation analysis of Average and Standard Deviation in four aspects of Professional Creativity and Innovation Ability of College Teachers in Chongqing is at a Medium level in all four aspects ($\bar{X}=3.26$). The highest to lowest levels are as follows: the highest level is Innovation consciousness ($\bar{X}=3.34$), followed by Innovative skills ($\bar{X}=3.27$), and the lowest is Innovate learning system ($\bar{X}=3.18$).

Table 4.3 Analysis of the Average and Standard Deviation of the Innovative Learning System for Professional Creativity and Innovative Ability of College Teachers in Chongqing

(n=397)

N0.	Innovative Learning System	\bar{X}	S.D.	Level	Rank
1	education background	3.23	0.827	Medium	3
2	income	3.11	0.917	Medium	8
3	department	3.05	0.783	Medium	9
4	major	3.13	0.671	Medium	7
5	professional status	3.24	0.909	Medium	2
6	teaching level	3.49	0.834	Medium	1
7	participate	3.15	0.775	Medium	5
8	preside over scientific research projects	3.02	0.796	Medium	10
9	active learning	3.15	0.616	Medium	5
10	personnel assessment system	3.23	0.961	Medium	3
Total		3.18	0.81	Medium	

According to Table 4.3, The average and standard deviation analysis of Deviation of the Innovative Learning System for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects ($\bar{X}=3.18$). The highest to lowest levels are as follows: the highest level is teaching level ($\bar{X}=3.49$), followed by professional status ($\bar{X}=3.24$), and the lowest is preside over scientific research projects ($\bar{X}=3.02$).

Table 4.4 Analysis of the Average and Standard Deviation of the Innovation consciousness for Professional Creativity and Innovative Ability of College Teachers in Chongqing

(n=397)

N0.	Innovation Consciousness	\bar{X}	S.D.	Level	Rank
1	innovation motivation	3.43	0.800	Medium	2
2	innovation interest	3.37	0.676	Medium	4
3	innovation emotion	3.28	0.783	Medium	7
4	innovation volition	3.45	0.771	Medium	1
5	divergent thinking	3.39	0.812	Medium	3
6	logical thinking	3.32	0.900	Medium	6
7	reverse thinking	3.18	0.717	Medium	8
8	critical thinking	3.33	0.627	Medium	5
Total		3.34	0.76	Medium	

According to Table 4.4, The average and standard deviation analysis of Innovation consciousness for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects ($\bar{X}=3.34$). The highest to lowest levels are as follows: the highest level is innovation volition ($\bar{X}=3.45$), followed by innovation motivation ($\bar{X}=3.43$), and the lowest is reverse thinking ($\bar{X}=3.18$).

Table 4.5 Analysis of the Average and Standard Deviation of the Innovative skills for Professional Creativity and Innovative Ability of College Teachers in Chongqing

(n=397)

N0.	Innovative skills	\bar{X}	S.D.	Level	Rank
1	learning ability	3.48	0.674	Medium	1
2	cooperation ability	3.43	0.595	Medium	3
3	practice ability	3.28	0.590	Medium	6
4	innovation ability	3.14	0.608	Medium	10
5	analytical ability	3.37	0.623	Medium	4
6	imagination ability	3.16	0.599	Medium	8

Table 4.5 (Continued)

(n=397)

N0.	Innovative skills	\bar{X}	S.D.	Level	Rank
7	critical ability	3.19	0.610	Medium	7
8	problem solving ability	3.11	0.708	Medium	12
9	organization and coordination ability	3.29	0.661	Medium	5
10	teaching ability	3.46	0.783	Medium	2
11	student recognition ability	3.15	0.626	Medium	9
12	mental adjustment ability	3.12	0.674	Medium	11
Total		3.27	0.65	Medium	

According to Table 4.5, The average and standard deviation analysis of the the Innovative skills for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects ($\bar{x}=3.27$). The highest to lowest levels are as follows: the highest level is learning ability ($\bar{x}=3.48$), followed by teaching ability ($\bar{x}=3.46$), and the lowest is problem solving ability ($\bar{x}=3.11$).

Table 4.6 Analysis of the Average and Standard Deviation of the Innovation Achievement for Professional Creativity and Innovative Ability of College Teachers in Chongqing

(n=397)

N0.	Innovation Achievement	\bar{X}	S.D.	Level	Rank
1	Teaching achievement	3.34	0.784	Medium	3
2	Scientific research achievement	3.19	0.802	Medium	5
3	Team achievement	3.21	0.756	Medium	4
4	Students achievement	3.09	0.890	Medium	8
5	Government policy	3.10	0.855	Medium	7
6	School policy	3.18	0.678	Medium	6
7	Degree to which schools	3.43	0.855	Medium	1
8	Your university's policy	3.35	0.716	Medium	2
Total		3.24	0.79	Medium	

According to Table 4.6, The average and standard deviation analysis of the Innovation Achievement for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects ($\bar{x}=3.24$).The highest to lowest levels are as follows: the highest level is degree to which schools ($\bar{x}=3.43$), followed by your university's policy ($\bar{x}=3.35$), and the lowest is students achievement ($\bar{x}=3.09$).

Part 3: Interview data analysis on the current situation of professional creativity and innovation of university teachers in Chongqing.

The tool used in this paper's interview survey research is based on the "Chongqing University Teacher Creativity and Innovation Ability Survey" questionnaire as a reference standard, and is based on variable situations. At the same time, the relevant dimensions are dispersed to form project questions, clear confidentiality commitments are made to the respondents, and the method of recording interviews is determined. A total of 10 questions were designed for the questionnaire, with 30 interviewees and 30 effectively collected interview samples. Use methods such as text analysis, information encoding, information organization, and record writing to analyze the interview content, and finally form three tables: summary, detailed response information, and detailed word frequency analysis. After summarizing all the collected information, merge and provide feedback on the same projects, and establish tables for registration and comparison of different information points to ensure that all the projects mentioned can be recorded and displayed.

In this study, researchers used an interview questionnaire specifically designed for this study. The interviewees were 30 participants in the interview group of this study, and the basic data is shown in Table 4.7.

Table 4.7 Basic information of Interviewees

Project	Category	No.	Percentage
School	Army Medical University	1	3.33
	Chongqing University	1	3.33
	Chongqing University of Posts and Telecommunications	3	10.00
	Chongqing Technology and Business University	3	10.00
	Pais College of Chongqing	4	13.33
	Technology and Business University	3	10.00
	Chongqing Electronic engineering Vocational College	3	10.00
	Chongqing Industrial Vocational and Technical College	3	10.00
	Chongqing Urban Management Vocational College	4	13.33
	Chongqing Engineering Vocational and Technical College	4	13.33
	Chongqing Electric Power College	4	13.33
	Total	30	100
Gender	Male	13	43.33
	Female	17	56.67
		Total	30
Age	20~30	2	6.67
	31~40	13	43.33
	41~50	10	33.33
	51~60	4	13.33
	Over 60 years old	1	3.33
		Total	30
Title	Intermediate professional title	13	43.33
	Deputy Senior Professional Title	7	23.33
	Senior professional title	4	13.33
	No professional title	2	6.67
		Total	30

According to Table 4.7, The survey subjects are from 10 universities in Chongqing, with a fixed sample size of 30 people selected proportionally, with 13 males accounting for 43.33%; There are 17 women, accounting for 56.67%, with more women. Two people aged 20-30, accounting for 6.67%; 13 people aged 31 to 40, accounting for 43.33%; 10 people aged 41-50, accounting for 33.33%; 4 people aged 51 to 60, accounting for 13.33%; One person over 60 years old, accounting for 3.33%, with the highest number being 31 to 40 years old and the lowest being over 60 years old. In the professional title data of the respondents, there are 4 individuals with junior professional titles, accounting for 13.33%; 13 people with intermediate professional titles, accounting for 43.33%; 7 individuals with deputy senior professional titles, accounting for 23.33%; 4 people with senior professional titles, accounting for 13.33%; There are 2 people without professional titles, accounting for 6.67%. The highest proportion of professional titles is intermediate professional titles, and the lowest proportion is without professional titles.

The Transcribed Texts of 30 Interviews are as Follows:

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

According to interviews, the overall understanding of the creativity and innovation of university teachers refers to the abilities and qualities exhibited by university teachers in teaching and research work. The viewpoints of the interviewees mainly focus on the following eight aspects: 1) Innovative teaching strategies. College teachers need to constantly update teaching methods and means, and adopt innovative teaching strategies, such as Flipped classroom, online and offline hybrid teaching, to better stimulate students' learning interest and initiative, and improve teaching results. 2) Develop new educational resources. For example, digital resources, social network resources, etc., to enrich students' learning resources and provide them with a more diverse learning experience. 3) Creative course design. Creative elements need to be integrated into curriculum design, such as the use of Interactive whiteboard, intelligent tools, etc., to improve students' interest in learning and participation, so that students can better master knowledge and skills. 4) Encourage students to think independently. Encourage students to think independently, provide free space for discussion, encourage

students to put forward new ideas and ideas, and cultivate students' Critical thinking and innovation consciousness. 5.) Innovative evaluation methods. Adopting more diverse and encouraging evaluation methods, such as innovative exam methods and motivating students to participate in research, to better stimulate students' interest and motivation in learning. 6) Explore students' innovative potential. Guide students to carry out inquiry learning, cultivate students' Critical thinking, etc., tap students' innovation potential, and provide more innovation opportunities and platforms for students. 7) Cultivate creative thinking. University teachers need innovative thinking training, providing innovative thinking tools, and cultivating students' creative thinking to better unleash their creativity and innovative abilities. 8) Innovative academic research. University teachers need to integrate innovative concepts into academic research, continuously explore new research fields and problems, propose new theories and methods, and make contributions to the development of the academic community.

The professional creativity and innovative ability of university teachers in Chongqing aims to provide them with innovative, useful, and inspiring ideas, solutions, or perspectives, and to transform these ideas into practical and innovative teaching or research results. The new content mainly includes the following aspects: 1) Innovative teaching strategies: teachers constantly explore new teaching methods and means, and adopt innovative teaching strategies such as online and offline hybrid teaching, Flipped classroom, etc. to improve teaching effects. 2) Develop new educational resources: Teachers develop and utilize new educational resources such as digital resources and social network resources. 3) Creative curriculum design: teachers integrate creative elements into curriculum design, and use advanced teaching tools such as Interactive whiteboard and intelligent tools to improve students' learning interest and participation. 4) Encourage students to think independently: teachers encourage students to think independently, provide free discussion space, and cultivate students' Critical thinking and innovation consciousness. 5) Innovative evaluation methods: Teachers should change traditional evaluation methods and adopt more diversified and encouraging evaluation methods to motivate students to participate in learning and enhance their interest and motivation in learning. 6) Digging students' innovation potential: teachers guide

students to carry out inquiry learning, cultivate students' Critical thinking, tap students' innovation potential, and provide more innovation opportunities and platforms for students. 7) Cultivating students' creative thinking: Teachers focus on cultivating students' creative thinking, conducting innovative thinking training, providing innovative thinking tools, and enabling students to better unleash their creativity and innovative abilities. 8) Innovative academic research: Teachers integrate innovative concepts into academic research, continuously explore new research fields and problems, propose new theories and methods, and make contributions to the development of the academic community.

In summary, the creativity and innovation of university teachers need to constantly update teaching methods and means, develop new educational resources, design creative courses, encourage students to think independently, adopt innovative evaluation methods, tap students' innovative potential, cultivate students' creative thinking, and conduct innovative academic research. The professional creativity and innovative ability of university teachers in Chongqing are more reflected in various aspects of teaching and research work.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

According to interviews, as the backbone of academic research and education, university teachers' professional creativity and innovation have a significant impact on their work, mainly reflected in the following aspects: 1) Course design. The creativity of university teachers influences students' needs and academic development trends, constantly innovating curriculum design to better meet students' learning needs. Through innovative, interesting, and inspiring course content, students' interest in learning can be stimulated and teaching effectiveness can be improved. 2) Research results. Innovative research methods and technological means, and achieving influential research results. These not only contribute to the development of the academic community, but also provide students with richer learning resources and improve teaching quality. 3) Teaching methods. Explore new teaching methods and improve teaching quality by utilizing advanced teaching

methods and innovative teaching concepts. 4) Academic exchange. Participate in academic exchange activities, exchange academic insights and experiences with peers, and promote the development of the academic community. 5) Social services. Actively participate in social service activities and provide intellectual support for social development. By innovating ways of serving society, teachers can leverage their professional advantages and promote social progress. 6) Personal development. Learn and enhance one's own abilities, continuously tap into one's own potential, and improve teaching and research levels. Through innovative personal development methods, one can better adapt to academic development trends and lay a solid foundation for personal career development.

How to Evaluate the Professional Creativity and Innovation Ability of University Teachers Several new aspects have been added to evaluate the professional creativity and innovation ability of university teachers: 1) Scientific research achievements. Evaluating teachers' research achievements requires comprehensive consideration of their research direction, depth, academic value, and social influence. 2) Teaching quality. Evaluating the teaching quality of teachers requires consideration of factors such as their teaching level, teaching methods, teaching effectiveness, and student feedback. 3) Guide students to innovate. To evaluate a teacher's ability to guide students to innovate, it is necessary to examine the teacher's teaching methods, teaching strategies, and experimental and practical conditions provided for students. 4) Interdisciplinary. It is necessary to examine the research direction, knowledge structure, and cooperation with other disciplines of teachers. 5) Creative thinking. It mainly depends on the teacher's way of thinking, research ideas, and innovative performance in the academic field.

In summary, evaluating the professional creativity and innovation ability of university teachers requires comprehensive consideration from multiple aspects. By comprehensively evaluating teachers' scientific research achievements, teaching quality, guiding students to innovate, interdisciplinary integration, industry integration, creative thinking, team collaboration, and open thinking, we can comprehensively understand teachers' professional creativity and innovation ability, providing strong support for improving teaching quality and promoting academic development.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

According to interviews, the main factors that enhance or limit the professional creativity and innovation ability of university teachers are: 1) Academic environment: an open, supportive, and encouraging academic environment can enhance teachers' creativity and innovation ability, while a closed, conservative academic environment may limit teachers' creativity and innovation ability. 2) Research funding: Adequate research funding can provide teachers with better experimental, research conditions, and time, enhancing their creativity and innovation ability. 3) Teaching tasks: If the teaching tasks are too heavy, teachers may not have enough time and energy to conduct research and innovation, which affects their creativity and innovation ability. 4) Training and development opportunities: Help teachers update their knowledge, improve their skills, master new research methods and technologies, and promote their creativity and innovation ability. 5) Incentive mechanism: An effective incentive mechanism can motivate teachers to conduct research and innovation, improve their creativity and innovation ability. For example, providing incentives such as promotion opportunities, reward mechanisms, and academic reputation for teachers. 6) Academic cooperation: Academic cooperation can enhance the professional creativity and innovation ability of university teachers. Collaborating with peers can provide more resources and knowledge, broaden research fields and ideas, and promote teachers' creativity and innovation ability.

At the level of Chongqing city, there are more factors that affect the professional creativity and innovation ability of university teachers. The following aspects are added: 1) Regional factors: the level of economic development and infrastructure construction have an impact on the professional creativity and innovation ability of university teachers. 2) Academic environment: providing teachers with more opportunities for academic exchange and cooperation. 3) Academic cooperation: Academic cooperation can enhance the professional creativity and

innovation ability of university teachers in Chongqing. Collaborating with peers can provide more resources and knowledge, broaden research fields and ideas, and promote teachers' creativity and innovation ability. 4) Support and encouragement: Support and encouragement from colleagues, family, friends, and students can stimulate the creativity and innovation ability of university teachers in Chongqing, making them more confident and motivated to conduct research and innovation.

In summary, in order to improve teachers' creativity and innovation ability, it is necessary to provide a good academic environment, establish effective incentive mechanisms, etc. At the same time, the Chongqing Municipal Government and universities should also take measures to reduce the teaching burden of teachers and encourage them to conduct more research and innovation.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Based on the responses of the interviewees, the suggestions for improving the professional creativity and innovation development of university teachers have extracted the following viewpoints: 1) cultivating innovative thinking. Pay attention to current social needs, start from reality, with the goal of solving practical problems, and promote the development of innovative thinking among teachers. Encourage teachers to try new ways of thinking and problem-solving, and support their participation in innovation competitions and research projects. 2) Increase research opportunities. Improve teachers' scientific research level and innovation ability, understand the latest research achievements in various fields, and guide teachers to conduct Transdisciplinarity and innovation. Provide research funding to enhance teachers' research enthusiasm and innovation ability. 3) Promote innovative education and encourage teachers to focus on cultivating innovative and practical abilities in teaching. Encourage teachers to actively participate in innovative projects. Establish an innovation achievement database. 4) Stimulate curiosity and curiosity, provide learning resources, and stimulate the exploratory spirit of university teachers. Arrange academic lectures and exchange activities, establish academic salons and

forums. 5) Cross disciplinary cooperation and innovation. Encourage teachers to collaborate with personnel in other professional fields and establish interdisciplinary cooperation platforms. 6) Cultivate practical skills. Encourage teachers to improve their innovation ability through practical operations, participate in projects such as enterprise and social practice, provide practical opportunities, and improve the quality of practical teaching. 7) Encourage teamwork. Encourage teachers to form research teams, enhance team cohesion and cooperation awareness, provide funding and venue support for team activities, and promote team innovation and development.

The suggestions for improving the professional creativity and innovation development of university teachers in Chongqing are summarized as follows:

- 1) Training and development plan. Training courses on teaching skills and innovation ability are offered to help teachers master advanced teaching methods and skills. Academic conference and exchange activities are held regularly to encourage teachers to participate in them, share research results and experience, broaden teachers' academic horizons, and improve their academic literacy and research level. Establish a career development guidance center to provide guidance and assistance for teachers in career planning, research application, and paper publication, promoting their career development and the transformation of research achievements.
- 2) Incentive and reward policies. Establish scientific research achievement awards and teaching innovation awards, provide promotion opportunities and preferential policies for professional title evaluation, implement the Performance-related pay system, link teachers' innovation achievements and performance with salary, and encourage teachers to constantly improve their innovation ability and performance level.
- 3) Create an innovative atmosphere. Strengthen the construction of campus innovation facilities, provide sufficient research equipment and laboratory resources, encourage teachers to participate in various academic organizations and research projects, advocate an open, inclusive, and free academic atmosphere, and encourage teachers to conduct exploratory and forward-looking research.
- 4) Cultivate teamwork spirit. Organize team building activities, encourage teachers to participate in Transdisciplinarity projects, set up a

team research project funding plan, support teachers to set up research teams, and promote team collaboration and innovation. 5) Strengthen research investment. Increase the funding limit for scientific research projects, encourage teachers to apply for various scientific research projects, establish campus research initiation funds, support the research work of new teachers, and provide research equipment and technical support. 6) Promote innovative education. Offering innovative education courses to cultivate teachers' consciousness and ability of innovative education, and improve their level of innovative education. Encourage teachers to carry out innovative experiments and projects, and hold activities such as innovation and entrepreneurship competitions and technology festivals.

In summary, improving the professional creativity and innovation of university teachers, especially those in Chongqing, requires multiple approaches. Interviewers are professional teachers who can provide very professional opinions and suggestions. These suggestions have played an important role in the development of subsequent guidelines.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Based on the responses of the interviewees, it was found that there is generally no specific opinion on this issue, and many teachers are not very clear about the current guidelines, so they responded according to their own understanding. Overall, the Chongqing Municipal Government and various universities have always attached great importance to the development of professional creativity and innovation among university teachers. The relevant policies and guidelines are as follows: 1) Encourage university teachers to conduct scientific research and innovation. The Chongqing Municipal Government has always encouraged university teachers to conduct scientific research and innovation, and has provided financial support and reward mechanisms for this. These policies and guidelines help to improve the scientific research level and innovation ability of teachers, and promote the transformation and application of scientific research achievements in universities. 2) Promote the professional development of university teachers. The Chongqing

Municipal Government has provided various professional development opportunities for university teachers through the formulation of various policies and guidelines, such as further education, training, academic exchanges, etc. These measures help to improve the professional level of teachers and promote innovation and reform in education and teaching. 3) Creating a Good Innovation Environment: The Chongqing Municipal Government emphasizes creating a good innovation environment in policies and guidelines, encourages interdisciplinary and interdisciplinary cooperation among university teachers, and promotes the integrated development of industry, academia, and research.

The effectiveness of policies and guidelines to enhance the professional creativity and innovation of university teachers in Chongqing is summarized as follows: 1) Strengthen support and financial investment for innovation projects. The government can increase funding support for innovation projects for university teachers, increase funding intensity, and expand the scope of funding. At the same time, more innovation funds and reward mechanisms can be established to encourage teachers to carry out scientific research innovation and result transformation. 2) Strengthen the pertinence and effectiveness of teacher professional development. The government can collaborate with universities to develop more targeted and effective professional development plans based on the actual needs of teachers. For example, training courses targeting specific disciplines or fields can be offered to improve teachers' professional literacy and teaching level. 3) Create a better innovation environment and cooperation mechanism. The government can introduce more policy measures to encourage interdisciplinary and interdisciplinary cooperation among university teachers, and promote the integrated development of industry, academia, and research. For example, interdisciplinary research centers or laboratories can be established to provide a more favorable research environment and cooperation mechanisms. 4) Strengthening policy implementation and supervision mechanisms: The government can strengthen supervision and evaluation of policy implementation to ensure the effective implementation of policies and guidelines. At the same time, some incentive mechanisms can be established to encourage universities to actively promote the

development of teachers' professional creativity and innovation. 5) Encourage the participation and support of social forces: The government can encourage social forces to participate in and support the development of professional creativity and innovation of university teachers, for example, by establishing innovation funds or incentive mechanisms funded by enterprises or social groups.

In short, the series of policies and guidelines formulated by the Chongqing Municipal Government have played a positive role in promoting the development of professional creativity and innovation among university teachers. However, in the actual implementation process, it is still necessary to continuously improve and optimize relevant policies and guidelines to improve their pertinence and effectiveness.

Table 4.8 The Influencing Factors and Development of Professional Creativity and Innovation Among University Teachers

Interviewee	Social needs	Personal achievements	traditional culture	Thinking habits	With maximum motivation	Free learning	Important mindset	Family atmosphere	International Perspective and Perspectives	Learning habits
Interviewee 1			√			√				
Interviewee 2				√					√	
Interviewee 3		√								
Interviewee 4					√	√				√
Interviewee 5				√				√		
Interviewee 6		√					√			
Interviewee 7						√			√	
Interviewee 8			√					√		
Interviewee 9	√					√				
Interviewee10				√			√			
Interviewee11		√						√		
Interviewee12						√				√
Interviewee13		√	√						√	
Interviewee14			√				√			
Interviewee15	√							√		

Table 4.8 (Continued)

Interviewee	Social needs	Personal achievements	traditional culture	Thinking habits	With maximum motivation	Free learning	Important mindset	Family atmosphere	International Perspective and Perspectives	Learning habits
Interviewee16					√					
Interviewee17			√							√
Interviewee18		√								√
Interviewee19						√		√		
Interviewee20			√						√	
Interviewee21			√							
Interviewee22		√								
Interviewee23					√			√		
Interviewee24			√						√	
Interviewee25				√						
Interviewee26					√				√	
Interviewee27			√					√		
Interviewee28	√								√	
Interviewee29					√			√		
Interviewee30						√			√	
Total	3	6	9	4	5	7	3	8	8	4

According to Table 4.8, based on the responses of 30 respondents, compile keywords into codes for statistics. In the opinions and evaluations on the professional creativity and innovation of university teachers table, the top three with the most statistical data are: traditional culture 9 times, Family atmosphere International Perspective and Perspectives 8 times, and Family atmosphere 8 times. The two places with the least statistical data are: Social needs 8 times and Important mindset 8 times.

Table 4.9 Opinions and evaluations on the Professional Creativity and Innovation of University Teachers

Interviewee	Learning System	Innovative Thinking	Innovative Skills	Innovation achievement	Willpower effort	environmental effect	Motivation level	Important mindset	Family atmosphere
Interviewee 1		√			√				√
Interviewee 2	√							√	
Interviewee 3			√			√			
Interviewee 4		√					√		
Interviewee 5				√		√			
Interviewee 6	√								
Interviewee 7		√						√	
Interviewee 8					√	√			
Interviewee 9									√
Interviewee10		√							
Interviewee11							√		√
Interviewee12			√				√		
Interviewee13									
Interviewee14	√					√			
Interviewee15					√				√
Interviewee16					√				
Interviewee17									√
Interviewee18						√			
Interviewee19			√			√			
Interviewee20	√								
Interviewee21						√			√
Interviewee22		√	√						
Interviewee23	√					√			
Interviewee24		√				√			
Interviewee25				√					
Interviewee26					√				√
Interviewee27		√				√		√	
Interviewee28	√								
Interviewee29				√				√	
Interviewee30		√				√			
Total	6	8	4	3	5	11	3	4	7

According to Table 4.9, based on the responses of 30 respondents, compile keywords into codes for statistics. In the influencing factors and development of professional creativity and innovation among university teachers table, the top three with the most statistical data are: environmental effect 11 times, talent 9 times, and Innovative Thinking 8 times. The two places with the least statistical data are: Innovation achievement 3 times and Motivation level 3 times.

Table 4.10 Innovative Learning System Coding for Influencing Factors

Interviewee	age	gender	education background	Family atmosphere	income	department	major	professional status	teaching level	Further Education Plan	participate	scientific research projects	Contract situation	active learning	personnel assessment system
Interviewee 1		√		√					√			√			
Interviewee 2			√			√					√	√			√
Interviewee 3	√				√				√				√	√	
Interviewee 4	√	√					√	√		√	√				
Interviewee 5			√		√			√	√		√			√	
Interviewee 6			√						√			√			√
Interviewee 7					√		√	√			√				
Interviewee 8		√	√					√							√
Interviewee 9	√			√					√		√	√			
Interviewee10		√						√	√					√	
Interviewee11	√		√					√	√						√
Interviewee12					√		√				√			√	
Interviewee13				√				√			√				√
Interviewee14	√				√	√			√			√			
Interviewee15	√		√						√	√			√		
Interviewee16			√		√			√			√			√	
Interviewee17		√	√			√	√		√						
Interviewee18	√								√		√	√			√
Interviewee19			√					√			√			√	
Interviewee20		√	√			√		√		√				√	

Table 4.10 (Continued)

Interviewee	age	gender	education background	Family atmosphere	income	department	major	professional status	teaching level	Further Education Plan	participate	scientific research projects	Contract situation	active learning	personnel assessment system
Interviewee21	√				√				√						
Interviewee22			√		√		√	√			√			√	
Interviewee23	√								√			√	√		
Interviewee24			√			√			√	√					
Interviewee25						√		√			√			√	
Interviewee26			√		√		√	√						√	
Interviewee27	√		√						√		√				√
Interviewee28		√		√		√		√		√					
Interviewee29			√		√				√			√			√
Interviewee30	√							√	√		√		√	√	
Total	11	7	15	4	10	7	6	15	17	5	14	8	4	11	8

According to Table 4.10, based on the responses of 30 respondents, compile keywords into codes for statistics. In the Innovative Learning System Coding for Influencing Factors table, the top three with the most statistical data are: teaching level 17 times, professional status 15 times, and education background 15 times. The two places with the least statistical data are: Family atmosphere 4 times and Contract situation 4 times.

Table 4.11 Innovation Consciousness for Influencing Factors

Interviewee	innovation motivation	innovation interest	Innovation and change	innovation emotion	innovation volition	divergent thinking	logical thinking	Innovative communication	reverse thinking	critical thinking
Interviewee 1		√				√				
Interviewee 2	√			√	√					√
Interviewee 3							√		√	
Interviewee 4		√						√		
Interviewee 5					√					
Interviewee 6	√			√			√			√
Interviewee 7						√	√			
Interviewee 8								√		
Interviewee 9	√				√					
Interviewee10	√					√			√	
Interviewee11					√					√
Interviewee12		√			√					
Interviewee13							√			
Interviewee14						√				√
Interviewee15	√			√	√					
Interviewee16								√		
Interviewee17		√			√					
Interviewee18	√				√					
Interviewee19		√	√						√	
Interviewee20						√	√			√
Interviewee21	√	√		√	√					
Interviewee22							√	√		
Interviewee23		√				√				
Interviewee24	√			√	√					
Interviewee25			√		√		√		√	
Interviewee26	√					√				
Interviewee27		√			√		√			√
Interviewee28	√			√		√				
Interviewee29	√				√			√		√
Interviewee30			√				√			
Total	11	8	3	6	13	8	9	5	4	7

According to Table 4.11, based on the responses of 30 respondents, compile keywords into codes for statistics. In the Innovation consciousness for Influencing Factors table, the top three with the most statistical data are: innovation volition 13 times, innovation motivation 11 times, and logical thinking 9 times. The two places with the least statistical data are: Innovation and change 3 times and reverse thinking 4 times.

Table 4.12 Innovative skills for Influencing Factors

Interviewee	learning ability	cooperation ability	practice ability	innovation ability	The ability to change	analytical ability	imagination ability	critical ability	problem solving ability	organization and coordination ability	The ability to reflect	teaching ability	student recognition ability	mental adjustment ability
Interviewee 1	√		√						√			√		
Interviewee 2		√					√							
Interviewee 3				√				√					√	
Interviewee 4	√					√		√						
Interviewee 5		√	√						√					
Interviewee 6	√						√			√		√		
Interviewee 7		√				√								
Interviewee 8				√				√	√					
Interviewee 9		√	√											√
Interviewee10	√				√	√	√			√				
Interviewee11	√												√	√
Interviewee12		√		√					√					
Interviewee13			√						√					
Interviewee14	√					√				√		√		
Interviewee15		√		√										
Interviewee16			√								√			
Interviewee17	√								√					
Interviewee18					√									√
Interviewee19	√							√					√	
Interviewee20		√								√				
Interviewee21	√		√			√						√		
Interviewee22		√						√	√					
Interviewee23	√													√
Interviewee24				√				√				√		
Interviewee25			√			√			√		√			
Interviewee26	√									√				√
Interviewee27		√			√		√						√	
Interviewee28			√					√				√		
Interviewee29				√			√							
Interviewee30	√								√					√
Total	12	9	8	6	3	6	5	7	9	5	2	6	4	6

According to Table 4.12, based on the responses of 30 respondents, compile keywords into codes for statistics. In the Innovative skills for Influencing Factors table, the top three with the most statistical data are: learning ability 12 times, cooperation ability 9 times, and problem solving ability 9 times. The two places with the least statistical data are: analytical ability 3 times and The ability to reflect 2 times.

Table 4.13 Innovation Achievement for Influencing Factors

Interviewee	teaching achievement	scientific research achievement	Increase in funding	team achievement	students achievement	government policy	school policy	degree to which schools	Inner satisfaction	your university's policy
Interviewee 1				√		√				
Interviewee 2					√					√
Interviewee 3			√			√				
Interviewee 4	√					√		√		
Interviewee 5				√			√			
Interviewee 6					√					√
Interviewee 7								√		√
Interviewee 8						√		√		
Interviewee 9		√							√	√
Interviewee10							√			√
Interviewee11						√	√			
Interviewee12	√					√				
Interviewee13		√						√		
Interviewee14					√					√
Interviewee15				√						√
Interviewee16						√				
Interviewee17					√			√		
Interviewee18		√								√
Interviewee19				√				√		
Interviewee20						√				√
Interviewee21	√							√		
Interviewee22				√						√
Interviewee23						√	√			
Interviewee24				√						√
Interviewee25	√						√			

Table 4.13 (Continued)

Interviewee	teaching achievement	scientific research achievement	Increase in funding	team achievement	students achievement	government policy	school policy	degree to which schools	inner satisfaction	your university's policy
Interviewee26		√							√	
Interviewee27			√							
Interviewee28		√					√			
Interviewee29				√					√	
Interviewee30					√			√		
Total	4	5	2	7	5	9	6	8	3	11

According to Table 4.13, based on the responses of 30 respondents, compile keywords into codes for statistics. In the Innovation Achievement for Influencing Factors table, the top three with the most statistical data are: your university's policy 11 times, government policy 9 times, and degree to which schools 8 times. The two places with the least statistical data are: Inner satisfaction 3 times and Increase in funding 2 times.

At the same time, based on the answer of 5, a relatively concentrated suggestion on improving the professional creativity and innovation of university teachers in Chongqing has been compiled, as follows:

1. Continuously promote the professional creativity and innovation of university teachers and related personnel.
2. At the municipal level, a pool of innovative talents for university teachers can be established in a coordinated manner, which can be used for online search, comparison, and screening.
3. College teachers can participate in an organized manner.
4. Increase incentive mechanisms.
5. Continuously promoting the innovative training system for university teachers
6. Provide teachers with conditions and opportunities for practical innovation.
7. Pay attention to the recognition mechanism for the professional creativity and innovation of university teachers

8. Focus on improving teachers' psychological adaptability
9. Evaluation of work contact with teaching, students, etc
10. The achievements of professional creativity and innovation of university teachers are displayed and rewarded.
11. Efforts should be made to strengthen the professional creativity and innovation of university teachers, and they should not be limited to form or words.
12. Present the results.

Table 4.14 Guideline for Developing the Vocational Create and Innovation Ability of University Teachers in Chongqing

Guideline	How to
Innovative Learning System	<ol style="list-style-type: none"> 1. Establish an innovative talent pool for university teachers. 2. Establish an innovative learning team 3. Conduct innovative learning training. 4. Optimize the content of the innovative learning system. 5. Establish a proactive innovation incentive mechanism. 6. Establish a comparison of innovative learning outcomes.
Innovation Consciousness	<ol style="list-style-type: none"> 1. Strengthen the ideological construction of the teaching staff. 2. Promote the construction of an innovative atmosphere in universities. 3. Encourage teachers to innovate. 4. Conduct innovative thinking training. 5. Continuously promote the establishment of teacher innovation projects. 6. Establish a library of teacher innovation projects. 7. Open up the application channel for teacher innovation projects. 8. Cultivate innovative thinking habits among teachers.
Innovation skills	<ol style="list-style-type: none"> 1. Cultivate teachers' innovative comprehensive learning ability. 2. Encourage teachers to carry out innovative cooperation. 3. Encourage seizing opportunities for innovative practice. 4. Establish a typical model teacher. 5. Create a system for teachers to learn innovative skills. 6. Improve teachers' psychological adaptability. 7. Cultivate teachers' organizational and coordination abilities. 8. Enhance the display of teachers' innovative skills.

Table 4.14 (Continued)

Guideline	How to
Innovation Achievement	1. Encourage teachers to achieve scientific research results.
	2. Motivate teachers to achieve teaching outcomes.
	3. The established a sound system for identifying innovative achievements.
	4. The school regularly releases and implements policies.
	5. Encourage teachers to collaborate and innovate
	6. The student's grades guided are linked to innovative achievements.
	7. Regularly watch exhibitions, exchange and learn innovative achievements.
	8. Build an innovative team of teachers.

According to Table 4.14, The guiding opinions on improving the professional innovation ability of college teachers in Chongqing have four aspects and 30 measures. There are a total of 6 measures to support innovative learning systems, 8 measures to enhance innovation **consciousness**, 8 measures to promote innovative skills, and 8 measures to support innovative outcomes.

Part 4: Data analysis to evaluate the applicability and feasibility of the guidelines for the professional creativity and innovation of university teachers in Chongqing.

Table 4.15 The average value and standard deviation of guidelines for the professional creativity and innovation of university teachers in Chongqing of middle-level administrators in three aspects.

No.	Guidelines	Adaptability			Feasibility		
		\bar{X}	S.D.	Level	\bar{X}	S.D.	Level
Part 1. The overview of guideline							
1	The relationship of philosophy, concepts and theories used.	4.71	0.98	Highest	4.52	0.74	Highest
2	The completeness of the items of the guideline.	4.94	0.91	Highest	4.79	0.90	Highest
3	The connection/relationship between the items of the guideline.	4.92	0.95	Highest	4.84	0.77	Highest
Part 2. Adaptability of the guidelines							
1	The basic concepts.	4.98	0.89	Highest	4.92	0.83	Highest
2	The goal of the guideline.	4.87	0.97	Highest	4.66	0.81	Highest
3	The scope of the guideline.	4.86	0.92	Highest	4.85	0.79	Highest
4	Application of guideline.	4.93	0.95	Highest	4.87	0.85	Highest
5	Evaluation of the guideline.	4.85	0.93	Highest	4.84	0.74	Highest
Part 3. Adaptability and Feasibility of the guideline							
Innovative Learning System							
1	Establish an innovative talent pool for university teachers.	4.90	0.95	Highest	4.88	0.76	Highest
2	Establish an innovative learning team	4.76	0.88	Highest	4.79	0.7	Highest
3	Conduct innovative learning training.	4.83	0.91	Highest	4.80	0.85	Highest
4	Optimize the content of the innovative learning system.	4.88	0.94	Highest	4.89	0.92	Highest
5	Establish a proactive innovation incentive mechanism.	4.76	0.85	Highest	4.74	0.8	Highest
6	Establish a comparison of innovative learning outcomes.	4.89	0.90	Highest	4.94	0.93	Highest
Innovation Consciousness							
1	Strengthen the ideological construction of the teaching staff.	4.95	0.95	Highest	4.94	0.94	Highest
2	Promote the construction of an innovative atmosphere in universities.	4.91	0.91	Highest	4.76	0.89	Highest

Table 4.15 (Continued)

No.	Guidelines	Adaptability			Feasibility		
		\bar{X}	S.D.	Level	\bar{X}	S.D.	Level
3	Encourage teachers to innovate.	4.88	0.84	Highest	4.83	0.72	Highest
4	Conduct innovative thinking training.	4.85	0.87	Highest	4.90	0.79	Highest
5	Continuously promote the establish - ment of teacher innovation projects.	4.92	0.93	Highest	4.93	0.95	Highest
6	Establish a library of teacher innovation projects.	4.79	0.95	Highest	4.64	0.84	Highest
7	Open up the application channel for teacher innovation projects.	4.86	0.89	Highest	4.91	0.92	Highest
8	Cultivate innovative thinking habits among teachers.	4.93	0.93	Highest	4.75	0.73	Highest
Innovative Skills							
1	Cultivate teachers' innovative comprehensive learning ability.	4.74	0.86	Highest	4.93	0.79	Highest
2	Encourage teachers to carry out innovative cooperation.	4.89	0.79	Highest	4.65	0.88	Highest
3	Encourage seizing opportunities for innovative practice.	4.80	0.89	Highest	4.83	0.94	Highest
4	Establish a typical model teacher.	4.93	0.81	Highest	4.75	0.86	Highest
5	Create a system for teachers to learn innovative skills.	4.76	0.83	Highest	4.77	0.77	Highest
6	Improve teachers' psychological adaptability.	4.92	0.92	Highest	4.89	0.89	Highest
7	Cultivate teachers' organizational and coordination abilities.	4.91	0.93	Highest	4.92	0.91	Highest
8	Enhance the display of teachers' innovative skills.	4.85	0.78	Highest	4.94	0.70	Highest
Innovation Achievement							
1	Encourage teachers to achieve scientific research results.	4.89	0.97	Highest	4.88	0.71	Highest
2	Motivate teachers to achieve teaching outcomes.	4.72	0.89	Highest	4.79	0.88	Highest

Table 4.15 (Continued)

No.	Guidelines	Adaptability			Feasibility		
		\bar{X}	S.D.	Level	\bar{X}	S.D.	Level
3	The established a sound system for identifying innovative achievements.	4.79	0.84	Highest	4.86	0.90	Highest
4	The school regularly releases and implements policies.	4.86	0.71	Highest	4.89	0.76	Highest
5	Encourage teachers to collaborate and innovate	4.93	0.75	Highest	4.91	0.86	Highest
6	The student's grades guided are linked to innovative achievements.	4.89	0.84	Highest	4.89	0.81	Highest
7	Regularly watch exhibitions, exchange and learn innovative achievements.	4.91	0.80	Highest	4.81	0.89	Highest
8	Build an innovative team of teachers.	4.92	0.92	Highest	4.81	0.94	Highest
Average		4.87	0.89	Highest	4.83	0.83	Highest

According to Table 4.15, the adaptability and feasibility of the guidelines for professional creativity and innovation of university teachers in Chongqing are represented by data. Experts have the highest adaptability and feasibility of the guidelines for professional creativity and innovation of university teachers in Chongqing ($\bar{X}=4.87$, $\bar{X}=4.83$), with innovation skills at the highest level in the four fields, followed by innovation achievements, innovation consciousness, and innovative learning systems. All projects are at a high or very high level, This means that the guidelines for improving the professional creativity and innovation ability of Chongqing university teachers are adaptable and feasible.

Chapter 5

Discussion Conclusion and Recommendations

This paper is a study aimed at improving the professional creative ability and professional innovation training guidelines of university teachers in Chongqing. The research objectives include:

1. In order to investigate the level of vocational creative and innovation ability of university teachers at Chongqing
2. In order to examine the factors affecting the level vocational creative and innovation ability of university teachers at Chongqing
3. In order to guideline for develop creative and innovation ability of university teachers at Chongqing

The investigation and analysis mainly focus on four aspects: 1) Innovative learning system, 2) Innovation consciousness, 3) Innovative skills, and 4) Innovation Achievement. This article is a study aimed at improving the professional creative ability and professional innovation training guidelines of university teachers in Chongqing. The overall population is 50007 in-service teachers from a total of 71 universities in Chongqing. The sample group ultimately selected 397 people as the research subjects, and the interview group consisted of 30 university teachers. The research tools are based on the actual research objectives and methods, using a mixed research approach, which combines questionnaire surveys (quantitative research) and interview surveys (qualitative research). At the same time, literature analysis is also used in the early stage, and descriptive research is also used in the later stage of the interview survey process. Data analysis mainly uses percentages, averages, and standard deviations. The conclusions, discussions, and recommendations of this study are as follows:

Conclusion

A study on the "Guidelines for Improving the Professional Creativity and Vocational Innovation Training of College Teachers in Chongqing". The researchers summarized the conclusion into three parts, as follows:

1. The current situation of professional innovation ability of university teachers in Chongqing.
2. Guidance on cultivating the professional innovation ability of university teachers in Chongqing.
3. The adaptability and feasibility of the training guidelines for improving the professional innovation ability of university teachers in Chongqing.

Part 1: Current Situation of Vocational Innovation Ability of College Teachers in Chongqing

The current situation of professional innovation ability of university teachers in Chongqing is at a moderate level in four aspects: innovative learning system, innovative consciousness, innovative skills, and innovative achievements. According to the data results of this study, the highest to lowest aspects are as follows: the highest level is innovation consciousness, followed by innovation achievements and skills, and the innovative learning system currently has the lowest score.

Innovation consciousness is at a relatively high level, but it is at a moderate level in the evaluation and annotation. The average and standard deviation analysis of Innovation consciousness for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is innovation volition, followed by innovation motivation, and the lowest is innovation interest .As knowledge imparters and innovation practitioners, university teachers' innovative consciousness and ability play a crucial role. The innovative consciousness of university teachers mainly includes aspects such as innovative thinking, innovative ability, and innovative spirit. This is related to Chen Jin and Qu Xiaojun, Research on Innovation Consciousness and Its Influencing Factors of College Teachers The exploration and research of higher education are consistent. Chen Jin and Qu Xiaojun. (2019, p.16).

Innovation skills are at a relatively high level compared to the general level, but are considered moderate in the evaluation criteria. The average and standard deviation analysis of the Innovative skills for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is learning ability, followed by teaching ability, and the lowest is problem solving ability. By analyzing data on the connotation, evaluation and measurement, influencing factors, cultivation and improvement of innovation ability, the current research status and development direction of innovation ability were analyzed. This is consistent with the research results of Chen Jiang. (2016, p.17).

Secondly, the innovation achievements are at an average level, but in the evaluation and labeling, they are at a moderate level. The average and standard deviation analysis of the Innovation Achievement for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is degree to which schools, followed by your university's policy, and the lowest is students achievement.

The innovative learning system is at the lowest level, but it belongs to the medium level in the evaluation annotation. The average and standard deviation analysis of Deviation of the Innovative Learning System for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is teaching level, followed by education background, and the lowest is major. Innovative learning methods, innovative learning technologies, innovative learning strategies, innovative learning environments, innovative learning modes, innovative learning evaluations, innovative learning applications, and innovative learning research are all components of the innovative learning system. Further deepening research and understanding of the innovative learning system is necessary to build a more effective innovative learning environment and mode, and cultivate more talents with innovation consciousness and practical abilities. This is consistent with the research results of Zhang Siqi and Gao Linlin. (2019, p20).

Part 2: Guiding ideology for improving the professional innovation ability of university teachers in Chongqing

The Guiding Opinions on Improving the Professional Innovation Ability of College Teachers in Chongqing have four aspects and 30 measures. There are a total of 6 measures to support innovative learning systems, 8 measures to enhance innovation consciousness, 8 measures to promote innovative skills, and 8 measures to support innovative outcomes.

Improving the innovative learning system includes 6 measures:

1. Establish an innovative talent pool for university teachers.
2. Establish an innovative learning team.
3. Conduct innovative learning training.
4. Optimize the content of the innovative learning system.
5. Establish a proactive innovation incentive mechanism.
6. Establish a comparison of innovative learning outcomes.

Improving innovation consciousness includes 8 measures:

1. Strengthen the ideological construction of the teaching staff.
2. Promote the construction of an innovative atmosphere in universities.
3. Encourage teachers to innovate.
4. Conduct innovative thinking training.
5. Continuously promote the establishment of teacher innovation projects.
6. Establish a library of teacher innovation projects.
7. Open up the application channel for teacher innovation projects.
8. Cultivate innovative thinking habits among teachers.

Improving innovation skills includes 8 measures:

1. Cultivate teachers' innovative comprehensive learning ability.
2. Encourage teachers to carry out innovative cooperation.
3. Encourage seizing opportunities for innovative practice.
4. Establish a typical model teacher.
5. Create a system for teachers to learn innovative skills.
6. Improve teachers' psychological adaptability.
7. Cultivate teachers' organizational and coordination abilities.

8. Enhance the display of teachers' innovative skills.

Improving innovation achievements includes 8 measures:

1. Encourage teachers to achieve scientific research results.
2. Motivate teachers to achieve teaching outcomes.
3. The school has established a sound system for identifying innovative achievements.
4. The school regularly releases and implements policies.
5. Encourage teachers to collaborate and innovate
6. The student's grades guided are linked to innovative achievements.
7. Regularly watch exhibitions, exchange and learn innovative achievements

Building an innovative team of teachers.

Part 3: Adaptability and Feasibility of the Guidelines for Improving the Professional Innovation Ability of College Teachers in Chongqing

The guiding principles for improving the professional innovation ability of university teachers in Chongqing are at the highest level of adaptability and feasibility in four aspects, with values ranging from 4.00 to 5.00. This means that the guiding principles for improving the professional innovation ability of university teachers in Chongqing have adaptability and feasibility.

The adaptability and feasibility of improving the innovative learning system are Highest.

Improving the adaptability and feasibility of innovation consciousness are Highest.

The adaptability and feasibility of improving innovation skills are Highest.

Improving the adaptability and feasibility of innovative achievements are Highest.

Based on the specific project of the guide, complete the following framework diagram Figure 5.1 Improvement Guide

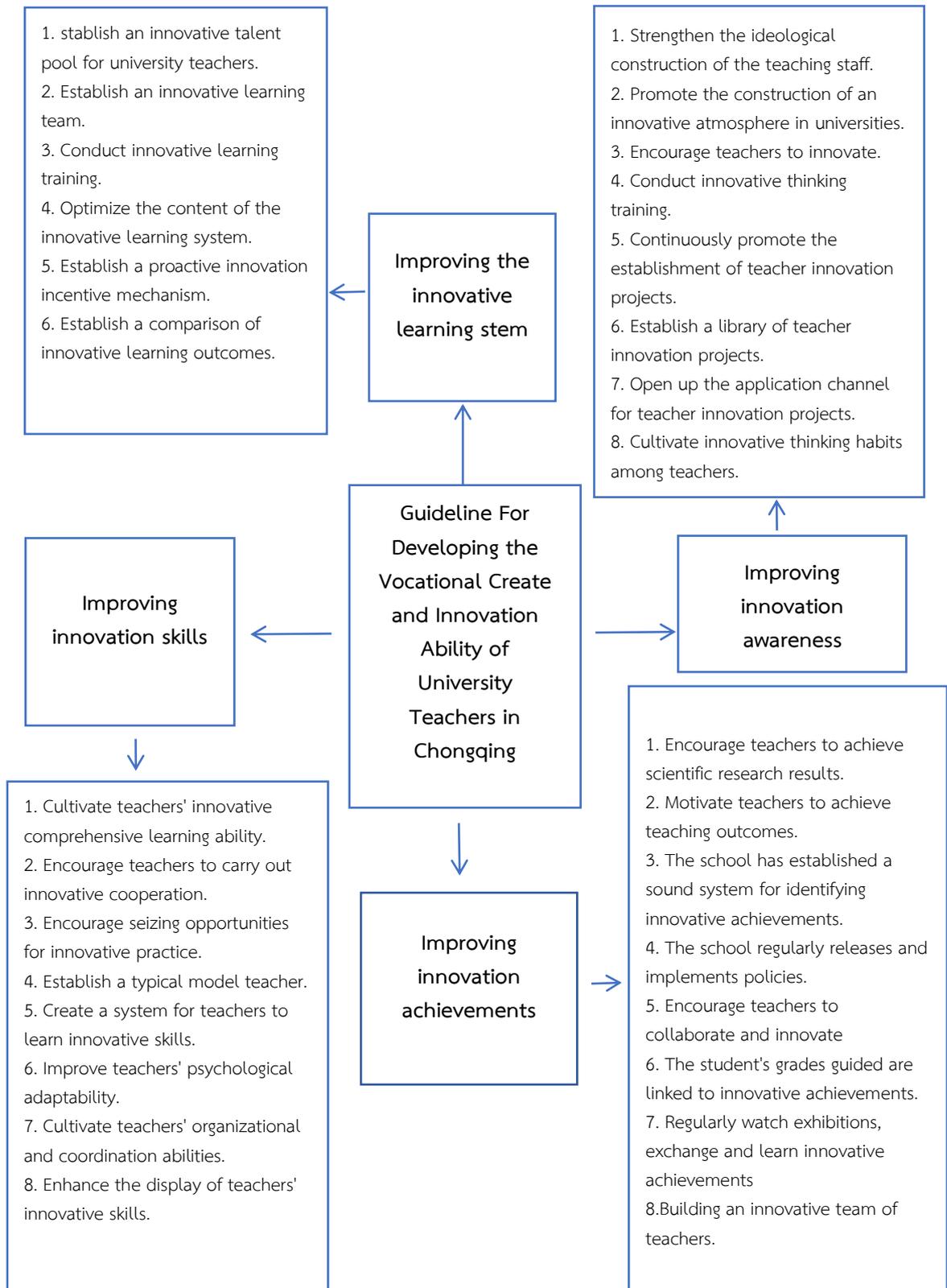


Figure 5.1 Improvement Guideline

Discussion

Research on the Guiding Opinions on Improving the Professional Innovation Ability of College Teachers in Chongqing. The researchers summarized the discussion into three parts, as follows:

Part 1 Current Situation of Vocational Innovation Ability of College Teachers in Chongqing

Part 2 Guiding ideology for improving the professional innovation ability of university teachers in Chongqing

Part 3 Adaptability and Feasibility of the Guidelines for Improving the Professional Innovation Ability of College Teachers in Chongqing

Part 1 Current Situation of Vocational Innovation Ability of College Teachers in Chongqing

The current situation of professional innovation ability of university teachers in Chongqing is at a moderate level in four aspects: innovative learning system, innovation consciousness, innovative skills, and innovative achievements. According to the data results of this study, the highest to lowest aspects are as follows: the highest level is innovation consciousness, followed by innovation achievements and skills, and the innovative learning system currently has the lowest score.

1. The innovative learning system is at the lowest level, but it belongs to the medium level in the evaluation annotation. The average and standard deviation analysis of Deviation of the Innovative Learning System for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is teaching level, followed by education background, and the lowest is major.

According to research data, on the one hand, universities themselves are aware of the importance of innovation. Various universities in Chongqing have been gradually building high-level innovative teacher teams, introducing various talent plans to attract and retain excellent teachers, stimulating their innovative potential, indicating that universities themselves are at a high level in terms of creative consciousness and highly recognize the impact and role of innovation consciousness.

The innovative teacher team also has a great promoting effect on the cultivation of innovative talents and the development of universities themselves. On the other hand, college teachers have a very high acceptance of innovation consciousness, . Almost all Almost all have heard or been exposed to the relevant innovation work of college teachers, and some are still carrying out innovation practice in a variety of ways.

According to the interview data, almost all Almost all are involved in innovation consciousness,, and many are already carrying out the construction of innovative teachers. For example, there are two universities directly under the Ministry of Education in Chongqing, and the rest are managed by the local government's education bureau. The current situation of implementing the talent plan is not optimistic. However, Chongqing University and Southwest University directly under the Ministry of Education attach great importance to this aspect and have good resources to attract and develop talents to implement measures, and have achieved good results. Although general undergraduate colleges and higher vocational colleges are aware of it, they suffer from local development restrictions, limited methods, and insufficient investment. Currently, vocational colleges in Chongqing generally emphasize the construction of a "double qualified" team, which is the construction of a double qualified teacher team and a double qualified structure teacher team. However, Chongqing belongs to southwestern China, and its geographical location and climate characteristics are not conducive to attracting talents. Especially, there is a serious shortage of outstanding young and middle-aged academic leaders, and in many fields, there is still a lack of top talents who can engage in dialogue with world-class scientific masters.

Measures to improve the innovative learning system: 1. Establish an innovative talent pool for university teachers; 2. Establish an innovative learning team; 3. Conduct innovative learning training; 4. Optimize the content of the innovative learning system; 5. Establish a proactive innovation incentive mechanism; 6. Establish a comparison of innovative learning outcomes. Based on analysis and discussion, it can be concluded that it is a practical and effective measure that is in line with the actual situation.

2. Innovation consciousness is at a relatively high level, but it is at a moderate level in the evaluation and annotation. The average and standard deviation analysis of Innovation consciousness for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is innovation volition, followed by innovation motivation, and the lowest is innovation interest.

The survey data shows that the basic information is relatively young, with higher professional titles and other outstanding university teachers and experienced, senior professional titles but older outstanding teachers have basically the same view. Nearly half of the teachers have weak basic information, but almost all Almost all have selected scientific research projects as quantitative indicators of innovative achievements, and the lower level is student recognition. In sampling and interviews, university teachers in Chongqing generally have a clear understanding and expression of the problems faced by universities in scientific research, such as using scientific research to measure various indicators. The actual situation is that the number of high-level leading talents in scientific research among university teachers in Chongqing is significantly low, including a lack of top-notch talents among high-level talents in universities directly under the Ministry of Education. So overall, universities in Chongqing still lack top-notch innovative talents, and the internationalization level of high-level talent teams is relatively low. The technological innovation potential of high-level talents still needs to be further stimulated, and the technological innovation ability and high-tech achievement transformation ability of high-level talent teams in universities in Chongqing also need to be strengthened. A small number of teachers talk about student recognition and believe that it is difficult to establish statistical standards, so in reality, student recognition is rarely used to evaluate the professional creativity and innovation of university teachers.

Measures to enhance innovation consciousness, include: 1. Strengthening the ideological construction of the teaching staff. 2. Promote the construction of an innovative atmosphere in universities. 3. Encourage teachers to innovate. 4. Conduct innovative thinking training. 5. Continuously promote the establishment of teacher innovation projects. 6. Establish a library of teacher innovation projects. 7. Open up

the application channel for teacher innovation projects. 8. Cultivate innovative thinking habits among teachers. Based on analysis and discussion, it can be concluded that it is a practical and effective measure that is in line with the actual situation.

3. Innovation skills are at a relatively high level compared to the general level, but are considered moderate in the evaluation criteria. The average and standard deviation analysis of the Innovative skills for Professional Creativity and Innovative Ability of College Teachers in Chongqing is at a Medium level in all aspects. The highest to lowest levels are as follows: the highest level is learning ability, followed by teaching ability, and the lowest is problem solving ability.

The survey data shows that the biggest factor affecting the level of innovation skills is innovation ability, and the differences in other abilities are not significant. Interview surveys show that some teachers believe that talent has the greatest impact, which is the ability to innovate. This kind of opportunity cannot be met, and if ideas cannot keep up, then innovation skills will definitely not be very good. In the field of innovation skills, the opinions interviewed are relatively scattered and there is no particularly unified viewpoint.

In many colleges and universities, there are problems such as lack of personnel, insufficient investment, lack of curriculum, too strong Curriculum theory, insufficient practical guidance, and lack of professional entrepreneurship service guidance in terms of college teachers' professional creation and innovation education. Meanwhile, most university teachers believe that their innovation and entrepreneurship teaching and work abilities do not meet the ideal requirements. It can be seen that there is a certain conflict between the internal needs of university teachers in Chongqing and the education system and support provided by universities, which directly affects the development of teachers and students. In recent years, the research on the exploration status of innovative technology talent cultivation models in universities in Chongqing suggests that innovative skills can be described in many ways, and can also be quantified as follows: firstly, from the overall situation of model exploration, many universities in Chongqing have started exploring innovative technology talent cultivation models and have high enthusiasm

for exploration, In the process of practice, some valuable consensus and experience have also been preliminarily obtained, but so far, no overall breakthrough has been made, and many explorations are still in the exploratory stage and have not been widely promoted in talent cultivation practice. Secondly, from the perspective of the theoretical basis on which the mode exploration is based, innovative education, Liberal education and other educational concepts have been widely recognized in the process of cultivating innovative scientific and technological talents in colleges and universities, but their specific propositions have not been effectively implemented and reflected in the process of exploring the talent cultivation mode, which is still in the stage of theoretical discussion to a large extent and has not been substantively put into educational practice. Thirdly, from the perspective of the specific direction of mode exploration, most of the current exploration practices mainly focus on some aspects of the talent cultivation mode rather than running through its entire process chain. Although this localized exploration practice can achieve certain positive results in the cultivation of innovative technology talents, it is often difficult to fully utilize the purpose and content elements of the talent cultivation mode. The synergistic effect between method elements and evaluation elements maximizes the overall effectiveness of the pattern. Fourthly, from the perspective of the content focused on model exploration, the goal of constructing a creative development system for university teachers in Chongqing is relatively clear and clear, with a high degree of emphasis. The development criteria for other quality systems such as their way of thinking, comprehensive abilities, and personality traits are generally vague and lack specialized implementation plans and measures. The specific quality goals of talent cultivation lack clear expression patterns and reasonable balance. Fifthly, in the process of exploring talent cultivation models, more emphasis is placed on evaluating the quality generation of university teachers through teaching and research channels. To sum up, the current mode of innovative scientific and technological talents training in Chongqing's colleges and universities has a strong feature of "materialistic education mode", that is, the high attention to social development and the comprehensive development of individual teachers, especially the neglect of their personality and creative development, fail to maintain

the necessary tension between the two values of Utilitarianism and Rationalism in education and teaching.

Measures to improve innovation skills: 1.Cultivate teachers' innovative comprehensive learning ability. 2. Encourage teachers to engage in innovative cooperation. 3. Encourage seizing opportunities for innovative practice. 4 Establish a typical model teacher. 5. Create a system for teachers to learn innovative skills. 6. Improve teachers' psychological adaptability. 7. Cultivate teachers' organizational and coordination abilities. 8.Enhance the display of teachers' innovative skills. Based on analysis and discussion, it can be concluded that it is a practical and effective measure that is in line with the actual situation.

4. The survey data shows that the biggest factor affecting the level of innovation skills is innovation ability, and the differences in other abilities are not significant. Interview surveys show that some teachers believe that talent has the greatest impact, which is the ability to innovate. This kind of opportunity cannot be met, and if ideas cannot keep up, then innovation skills will definitely not be very good. In the field of innovation skills, the opinions interviewed are relatively scattered and there is no particularly unified viewpoint.

In many colleges and universities, there are problems such as lack of personnel, insufficient investment, lack of curriculum, too strong Curriculum theory theory, insufficient practical guidance, and lack of professional entrepreneurship service guidance in terms of college teachers' professional creation and innovation education. Meanwhile, most university teachers believe that their innovation and entrepreneurship teaching and work abilities do not meet the ideal requirements. It can be seen that there is a certain conflict between the internal needs of university teachers in Chongqing and the education system and support provided by universities, which directly affects the development of teachers and students. In recent years, the research on the exploration status of innovative technology talent cultivation models in universities in Chongqing suggests that innovative skills can be described in many ways, and can also be quantified as follows: firstly, from the overall situation of model exploration, many universities in Chongqing have started exploring innovative technology talent cultivation models and have high enthusiasm

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the necessary tension between the two values of Utilitarianism and Rationalism in education and teaching.

Measures to improve innovation skills: 1. Cultivate teachers' innovative comprehensive learning ability. 2. Encourage teachers to engage in innovative cooperation. 3. Encourage seizing opportunities for innovative practice. 4. Establish a typical model teacher. 5. Create a system for teachers to learn innovative skills. 6. Improve teachers' psychological adaptability. 7. Cultivate teachers' organizational and coordination abilities. Enhance the display of teachers' innovative skills. Based on analysis and discussion, it can be concluded that it is a practical and effective measure that is in line with the actual situation.

5. Survey data shows that there are significant differences in academic qualifications, professional titles, and personalities among university teachers, which are positively correlated with differences in professional creativity. At the same time, there are significant differences in understanding in terms of age, educational background, academic background, and major. The interview survey was also consistent with the results of the questionnaire survey. With the impact of the market economy and the diversification of social culture, the thoughts and values of university teachers have been greatly affected, especially the ideological and behavioral tendencies of young and middle-aged teachers. At the same time, due to the huge pressure of purchasing houses, salary income, medical insurance, etc., the professional ideals and self-esteem of university teachers have been disrupted to a certain extent, and a considerable number of young teachers cannot teach and educate with peace of mind, The enthusiasm for teaching is not high, the ideological level is not high, the professional sentiment is indifferent, the sense of career and responsibility is lacking, the style is impetuous and not enterprising, and there is a lack of teaching innovation spirit and consciousness,. So at present, we will guide the inclusion of innovative achievements in a wider range. In addition, the atmosphere and system of innovation in Chongqing's high schools have caused many problems in the innovation environment of university teachers. Therefore, the development momentum of innovation and entrepreneurship education is strong, and various universities in Chongqing are also continuously deepening the certification of integrity

achievements, achieving certain results. Due to the influence of external environment and internal factors of the school, the innovative spirit of universities in Chongqing has not been well cultivated, and has been artificially or even systematically squeezed, resulting in a weak innovation atmosphere in universities. It is difficult to cultivate the innovation of teacher work in the soil where innovative culture is lacking. So far, Chongqing has not seen any universities in the city or even in China explicitly proposing to create a culture of teaching innovation. Without the cultural environment of teaching innovation, the cultivation of innovative talents becomes a passive water. So in order to promote human cognition and progress, rectification is needed.

Measures to improve innovation achievements: 1. Motivate teachers' research achievements; 2. Motivate teachers' teaching achievements. 3. Schools should establish a sound system for identifying innovative achievements. 4. Encourage teachers to collaborate and carry out innovation. 5. Guide students to achieve results that are consistent with innovative achievements. 5. Regularly watch exhibitions and exchange innovative achievements. Based on analysis and discussion, it can be seen that these measures are in line with the actual situation and effective when carried out.

Part 2 Guiding ideology for improving the professional innovation ability of university teachers in Chongqing

The Guiding Opinions on Improving the Professional Innovation Ability of College Teachers in Chongqing have four aspects and 30 measures. There are a total of 6 measures to support innovative learning systems, 8 measures to enhance innovation consciousness, 8 measures to promote innovative skills, and 8 measures to support innovative outcomes.

Improve the innovative learning system

Including 6 measures: 1. Establish an innovative talent pool for university teachers. 2. Establish an innovative learning team. 3. Conduct innovative learning training. 4. Optimize the content of the innovative learning system. 5. Establish a

proactive innovation incentive mechanism. 6. Establish a comparison of innovative learning outcomes.

The survey found that the current situation of professional creativity and innovation among university teachers in Chongqing has not yet formed a high level in terms of innovative learning system. For example, while providing financial and material support for innovative teacher talents, they should also actively protect their innovative achievements, forming a good atmosphere of respecting creativity and innovative talents. For teachers, tilt towards innovative teachers in terms of salary, professional titles, performance rewards, etc. Reform the drawbacks of previous distribution systems and establish a sound and fair distribution mechanism. On the basis of maintaining a stable basic salary level, increase rewards for innovative achievements to stimulate teachers' innovation potential. Encourage the combination of teaching and scientific research, use scientific research as a basis for cultivating innovative talents, and use the cultivation of innovative talents as an effective way to enhance innovation ability. Fully tap into the innovative potential of innovative teachers, and ensure high-quality student training through high-level research to continuously improve the innovation ability of high school teachers.

Enhance innovation consciousness

Including 8 measures: 1. Strengthen the ideological construction of the teaching staff. 2. Promote the construction of an innovative atmosphere in universities. 3. Encourage teachers to innovate. 4. Conduct innovative thinking training. 5. Continuously promote the establishment of teacher innovation projects. 6. Establish a library of teacher innovation projects. 7. Open up the application channel for teacher innovation projects. 8. Cultivate innovative thinking habits among teachers.

Each article of the guide is based on data analysis and provides practical recommendations. For example, in this measure, promoting the construction of an innovative atmosphere in universities, the growth of innovative teachers is inseparable from the overall atmosphere of the school. Whether a school has a good innovation environment depends on the system. Only an innovative institutional environment can provide guarantees for the growth of innovative teachers. The promotion of professional innovation and creativity among university teachers in

Chongqing should first consider a policy environment that is democratic, open, and encourages innovation. Two aspects can be considered:

One is to optimize the material environment for cultivating innovative talents. The material environment of a campus is the material guarantee for the smooth progress of academic activities, such as books and materials, school buildings, instruments and equipment, opportunities for academic exchange between individuals, necessary living conditions, relatively stable teaching and research bases, research funds and collaborative funds, and all tangible teaching facilities. With a good material environment, it is possible to form a synergy with the institutional and cultural environment that is conducive to the cultivation of innovative teacher talents. Of course, to do these things well, there needs to be financial investment. We will raise funding from multiple sources to address the material environment construction needs, including increasing government investment, generating income from universities, introducing corporate funds, donating alumni and celebrities, and bringing in teacher projects. The Chongqing Municipal Government's investment in education should reach or approach the world average level. Schools should also take the initiative to open up funding sources. According to the questionnaire and interview research, it is found that on the one hand, higher education in Chongqing is underfunded and difficult to operate, but on the other hand, there is a serious waste and idleness of people, finance, and materials. These issues need to be taken seriously and addressed in the long term.

The second is to improve the institutional environment for cultivating innovative talents. The establishment of an institutional environment for the cultivation of innovative talents should be based on the criteria of being conducive to the formation of an atmosphere of tolerance and understanding, the exertion of innovative personality, and the protection of Academic freedom, so as to create a good macro institutional environment and a good micro operating environment. Cultivating innovative talents and cultivating innovative spirit among university teachers requires both hardware support and institutional guarantee. A specific environment is the result of the design, arrangement, operation, and shaping of a

specific system. In the construction of an innovative environment, institutions play a crucial role. Create a favorable macro institutional environment.

Improving innovation skills

Including 8 measures: 1. Cultivate teachers' innovative comprehensive learning ability. 2. Encourage teachers to carry out innovative cooperation. 3. Encourage seizing opportunities for innovative practice. 4. Establish a typical model teacher. 5. Create a system for teachers to learn innovative skills. 6. Improve teachers' psychological adaptability. 7. Cultivate teachers' organizational and coordination abilities. 8. Enhance the display of teachers' innovative skills.

For example, all universities in Chongqing are actively implementing new educational models, continuously improving the curriculum system, and establishing a three-dimensional curriculum system that includes innovation and entrepreneurship general courses, practical training courses, and practical courses. Incorporate teacher innovation and entrepreneurship competitions, projects, and subject competitions into the curriculum system, and provide certain rewards to encourage university teachers to actively participate in innovation and entrepreneurship practice activities. Continuously updating teaching content, from talent cultivation plans to lesson plans for each course, fully integrating and reflecting innovation and entrepreneurship content in various practical activities, promoting the systematization and operability of innovation and entrepreneurship education content. New technologies and tools are constantly emerging, and teachers' learning methods, especially informal learning, can be easily completed through online training platforms, mobile learning platforms, or live streaming platforms, making their professional development more convenient and flexible, and conducive to achieving rapid dissemination and widespread coverage of high-quality resources. University teachers master the multi-disciplinary theoretical knowledge and excellent entrepreneurial cases necessary for innovation and entrepreneurship through innovation and entrepreneurship related training and online course learning. Establish and improve the innovative skills learning system for university teachers through various channels.

Improving innovation outcomes

Including 8 measures: 1. Encourage teachers to achieve research results. 2. Motivate teachers to achieve teaching outcomes. 3. The school has established a sound system for identifying innovative achievements. 4. The school regularly releases and implements policies. 5. Encourage teachers to collaborate and carry out innovation. 6. Guide students to achieve results that are linked to innovation. 7. Regularly watch exhibitions and exchange innovative achievements for learning. 8. Build an innovative team of teachers.

Taking building an innovation team as an example, in the concept of building an innovation team for university teachers, the core goal of work should be to cultivate and cultivate innovative teachers, improve their creative qualities, and promote the enhancement of reflection, research, and practical awareness among in-service teachers. On the one hand, universities should strengthen the participation of university teachers in practice, which is not only conducive to the combination of theory and practice in the teaching process, but also helps to cultivate applied and innovative talents. At the same time, through practice, it can also promote teachers to continuously improve teaching methods, innovate teaching models, and enhance the competitiveness of the school. On the other hand, the improvement of the international teaching staff level in promoting the construction of the teaching staff. Colleges and universities in Chongqing, especially Research university, should establish an international concept of running schools, establish an international and high-level teaching and research team in terms of teachers, create an international campus environment, build an international exchange platform and teaching practice platform for chemistry, and learn and draw on new ideas and methods of foreign talents in teaching and scientific research through international exchange platform activities, It is beneficial for Chinese university teachers to improve and innovate in teaching and research work, thereby promoting the development of Chinese universities to a higher level.

Part 3 Adaptability and Feasibility of the Guidelines for Improving the Professional Innovation Ability of College Teachers in Chongqing

The adaptability and feasibility of improving the innovative learning system are Highest. According to The research results of this paper indicate that, among the innovative learning systems for vocational creativity of university teachers, In terms of adaptability, the highest adaptability is Establish an innovative talent pool for university teachers, the lowest adaptability is Establish a proactive innovation incentive mechanism. In terms of feasibility, the highest feasibility is Establish a comparison of innovative learning outcomes, the lowest feasibility is Establish a proactive innovation incentive mechanism. but all project evaluations are at a highest level.

Improving the adaptability and feasibility of innovation consciousness, are Highest. According to The research results of this paper indicate that, among the Innovation Consciousness for vocational creativity of university teachers, In terms of adaptability, the highest adaptability is Strengthen the ideological construction of the teaching staff, the lowest adaptability is Establish a library of teacher innovation projects. .In terms of feasibility, the highest feasibility is Strengthen the ideological construction of the teaching staff, the lowest feasibility is Establish a library of teacher innovation projects. but all project evaluations are at a highest level.

The adaptability and feasibility of improving innovation skills are Highest. According to The research results of this paper indicate that, among the Innovative Skills for vocational creativity of university teachers, In terms of adaptability, the highest adaptability is Establish a typical model teacher, the lowest adaptability is Cultivate teachers' innovative comprehensive learning ability. In terms of feasibility, the highest feasibility is Enhance the display of teachers' innovative skills, the lowest feasibility is Encourage teachers to carry out innovative cooperation. but all project evaluations are at a highest level.

Improving the adaptability and feasibility of innovation achievements are Highest. According to The research results of this paper indicate that, among the innovation achievements for vocational creativity of university teachers, In terms of adaptability, the highest adaptability is Encourage teachers to collaborate and innovate, the lowest adaptability is Motivate teachers to achieve teaching outcomes. In terms of

feasibility, the highest feasibility is Encourage teachers to collaborate and innovate, the lowest feasibility is Establish a proactive innovation incentive mechanism. but all project evaluations are at a highest level.

Recommend Wendation

Implications

The research results on building a teacher innovation team indicate that the guidance and suggestions for improving the professional innovation and creative ability of university teachers in Chongqing are as follows: in terms of the innovative learning system, it was found that its level is the lowest, but it belongs to the medium level in the evaluation label. According to data analysis, the levels are as follows: the highest level is active learning, followed by teaching level, professional title, etc., and the understanding assessment is the lowest level. So the suggestion is: 1. Establish an innovative talent pool for university teachers. 2. Establish an innovative learning team. 3. Conduct innovative learning training. 4. Optimize the content of the innovative learning system. 5. Establish a proactive innovation incentive mechanism. 6. Establish a comparison of innovative learning outcomes.

In terms of innovation consciousness,, researchers have a relatively high level of innovation consciousness, but they are at a moderate level in the evaluation annotation. According to data analysis, the levels are as follows: the highest level is innovation motivation, followed by innovation will, innovation emotion, etc., and Critical thinking is the lowest level. So the suggestion is: 1. Strengthen the ideological construction of the teaching staff. 2. Promote the construction of an innovative atmosphere in universities. 3. Encourage teachers to innovate. 4. Conduct innovative thinking training. 5. Continuously promote the establishment of teacher innovation projects. 6. Establish a library of teacher innovation projects. 7. Open up the application channel for teacher innovation projects. 8. Cultivate innovative thinking habits among teachers.

In terms of creative skills, researchers have a general level. It is at a relatively high level compared to the general level, but it belongs to the medium level in the evaluation and annotation.. According to data analysis, the levels are as

follows: the highest level is innovation ability, followed by practical ability, psychological adjustment ability, etc., and organizational coordination ability is the lowest level. So the suggestion is: 1. Cultivate teachers' innovative comprehensive learning ability. 2. Encourage teachers to carry out innovative cooperation. 3. Encourage seizing opportunities for innovative practice. 4. Establish a typical model teacher. 5. Create a system for teachers to learn innovative skills. 6. Improve teachers' psychological adaptability. 7. Cultivate teachers' organizational and coordination abilities. 8. Enhance the display of teachers' innovative skills.

In terms of innovation achievements, researchers believe that the innovation achievements are at an average level, but in the evaluation and labeling, they are at a moderate level. According to data analysis, the levels are as follows: the highest level is scientific research achievements, followed by teaching achievements, school policies, etc., and student recognition is the lowest level. So the suggestion is: 1. Encourage teachers to achieve scientific research results. 2. Motivate teachers to achieve teaching outcomes. 3. The school has established a sound system for identifying innovative achievements. 4. The school regularly releases and implements policies. 5. Encourage teachers to collaborate and carry out innovation. 6. Guide students to achieve results that are linked to innovation. 7. Regularly watch exhibitions and exchange innovative achievements for learning. 8. Build an innovative team of teachers.

Research Value and Prospects

Theoretical Contribution

This study reveals the current situation of professional creation and innovation of university teachers in Chongqing, and proposes guidelines for the development of professional creation and innovation of university teachers in Chongqing. The research conclusion provides new theoretical support for promoting the professional creation and innovation of university teachers in Chongqing, and provides practical and effective suggestions for exploring the guidelines for the professional creation and innovation of university teachers in Chongqing.

Limitations and Prospects of Research

This study has certain limitations and needs further improvement in future research:

This research is limited to the survey of 10 colleges and universities in Chongqing, and its practical scope is somewhat narrow. 1) Future research can use the method of Stratified sampling to expand the survey scope to colleges and universities across the country. 2) The data collection of Dependent and independent variables and dependent variable is mostly provided by the respondents themselves on the network, which will bring the risk of common method deviation. In the future, surveys can be conducted in multiple time periods, and the innovative behavior of the respondents can be provided by their direct superiors or colleagues, making the data more objective. 3) This study only examines the mediating role of basic information, work values, etc. of college teachers in Chongqing in the career creation and innovation of college teachers. In order to better fit the actual situation, the theoretical model of this study can be expanded in the future to explore the moderating role of Organizational commitment in the career creation and innovation of college teachers, so as to better understand the mechanism that affects the career innovation behavior of college teachers in Chongqing.

Future Research

The research on the professional creativity and innovation ability of university teachers in Chongqing has a great guiding role for the development of universities in Chongqing, and also has great reference significance for other universities in the country. Based on research, it is recommended to focus on and improve the following areas in the future:

1. Sustainability of Cultivating Professional Creativity for College Teachers

In the process of building the teaching staff for innovation and entrepreneurship education in universities, teachers should not be blindly required to meet the standard of "all-around", but should be carefully divided into educational work based on their

actual abilities to ensure that they can perform their respective duties and promote the improvement of their own professional creativity. In the future, comprehensive research work can be conducted for the teacher community to understand the actual situation of each teacher, provide different training content for different teachers, and encourage teachers to actively participate in training activities. Through this approach, teachers' innovation and entrepreneurship education teaching ability can be improved to ensure the effectiveness of training. In order to improve teachers' innovation and entrepreneurship abilities in the future, we can also start from two aspects: firstly, we should attach great importance to the cultivation and introduction of innovative teacher talents, and reward teachers and teams who have made outstanding contributions in scientific and technological innovation, teaching innovation, project consulting, and achievement transformation, and have created economic benefits for schools, in order to stimulate teachers' self-improvement and enthusiasm for teaching innovation; Secondly, a school level talent pool for innovation and entrepreneurship teachers can be established to select outstanding talents from various industries, expand the teaching team, such as researchers, entrepreneurs, venture capitalists, etc., to serve as part-time teachers for innovation and entrepreneurship. At the same time, excellent teachers can be selected annually for commendation to enhance the innovation and entrepreneurship education ability of the teaching team.

2. The construction of the professional creativity system for university teachers is a dynamic process

Firstly, we should effectively carry out the organizational and leadership work for the construction of the school's innovation and entrepreneurship teacher team. Innovation and entrepreneurship education should be regarded as an important component of university professional construction and the core content of professional reform, equipped with professional staff and special funding support, and carried out overall planning and top-level setting to provide good support for the construction of innovation and entrepreneurship teaching staff and the implementation of related activities. The second is to attach great importance to innovation and entrepreneurship practice activities, develop sound management systems, ensure effective implementation of the system, promote the normalization

of innovation and entrepreneurship education work, and improve the implementation effect of the work. The third is to strengthen the mechanism of linking the creative achievements of university teachers with student achievements, which can further create an atmosphere for innovation and entrepreneurship education in universities and improve the effectiveness of innovation and entrepreneurship education.

Currently, most universities in Chongqing do not offer innovation and entrepreneurship education majors, and the teaching staff needs to be explored internally. By building an innovation and entrepreneurship education training platform, existing teachers can be helped to achieve transformation. Universities can establish corresponding innovation and entrepreneurship guidance training courses, provide teachers with corresponding pre job comprehensive knowledge training, ensure that they can understand basic knowledge such as company finance and enterprise management, and guide teachers with professional abilities to invest in innovation and entrepreneurship education; Invite successful entrepreneurs and innovation and entrepreneurship teachers for communication; If conditions permit, teachers can also be encouraged to take temporary positions in enterprises for training, learn about the market operation mode of enterprises, and promote the improvement of teachers' practical skills; We should also cooperate with government departments such as the Finance Bureau and the Patent Office to invite relevant staff to explain the preferential policies for innovation and entrepreneurship, help teachers understand the development trends of innovation and entrepreneurship, and enhance their ability to teach innovation and entrepreneurship.

3. Continuously updating measures are needed to improve the professional creative and practical abilities of university teachers. The practical ability of university teachers has a significant impact on the implementation of innovation and entrepreneurship education. Universities can arrange teachers to practice regularly through school enterprise cooperation. Teachers should actively participate in job training, project practice, job positions, and other activities, deepen their understanding of business models and production processes on the front line of enterprises, and be familiar with job settings, operating standards, management

systems, and other contents of enterprises, At the same time, in the process of participating in enterprise projects and technical research, the ability to combine production, teaching and research will be improved. University teachers should also continuously improve their teaching level, change the previous classroom teaching mode, offer more vivid and interesting innovation and entrepreneurship education courses, stimulate their own and students' creativity, stimulate teachers' enthusiasm for self-improvement, and truly achieve the healthy development of professional creativity.

References

- Chen Bohua & Xu Bingou. (2006). Construction of Developmental Teacher Evaluation System -- from the perspective of Teacher Professionalism. *Educational theory and practice*.50-53.
- Chen Jijun & Xiong Jing. (2007). On the management and development of college teachers' creativity. *The contemporary economy*.12.10-16.
- Chen Jin & Qu Xiaojun. (2019). Research on Innovation Consciousness and Its Influencing Factors of College Teachers. *Exploration of Higher Education*.12.
- Chen Jiang. (2016). Creative Thinking and Innovative Ability. *Education Research*.12.12-17.
- Chen Lin. (2018). A Study on the Factors Influencing the Innovation Ability of University Teachers. *Higher Education Research*.62.
- Ding Jie. (2020). Empirical Study on the Innovation Consciousness of University Teachers. *Journal of Beijing Institute of Education*, 34 (1), 50-56.
- Gao Lijing. (2014). An investigation and analysis of the ideological status of young teachers in colleges and universities. *School party building and ideological education*.2.45-47.
- Guo Ji, Qian Kaihong & Jia Yuebin. (2012). Talent competitiveness of colleges and universities in Jiangsu Province and its influencing factors: An Empirical analysis based on inter-university panel Data from 2006 to 2009. *Science and technology management research*.32.(4) .77-81.
- Huang Silin, Lin Chongde & Wang Yiwen. (2005). Teachers' Implicit theory of creativity. *Psychological science*.1243-1245.
- Huang He. (2018). Research on teacher innovation and entrepreneurship education teaching capacity construction under the new normal of economy: A case study of Foshan University of Science and Technology. *Theoretical research and practice of innovation and entrepreneurship*.64-65.
- Huang Zhaoxin & Luo Zhimin. (2016). Research on the Development Strategy of University Entrepreneurship Education from the perspective of multiple theories. *Educational research*.11.58.

- He Yulin, Wang Zaixin & Yang Lianfa. (2018). Construction of teaching ability evaluation system for innovation and entrepreneurship education of college teachers under the background of mass entrepreneurship and Innovation. *Education in Guangxi*.1.4-5.
- Hua Jucui. (2017). Construction and practice of practical teaching system of Engineering major in local universities from the perspective of innovation and entrepreneurship. *Modern educational management*.92-96.
- Jiang Yang. (2013). Analysis on the path of Japanese University education reform. *Education Review*.
- Jia Junping & Cai Shuangshuang. (2021). Research on Strategies for Cultivating and Enhancing the Innovative Consciousness of University Teachers. *Journal of Northwest Adult Education College*.1-6.
- Lu Shujing. (2015). Search. The principle and mechanism of innovation and entrepreneurship education embedded in professional education.
- Li Hongya. (2013). On the characteristics and requirements of college teachers' innovation. *Educational theory and practice*.12.36.
- Liu Fang & Wang Shu. (2020). International Comparative Study on the Innovative Consciousness of University Teachers. *Comparative Education Research*. (10), 77-83.
- Liu Yongxin & Ju Dan. (2015). Research on the deficiency of teachers' practical teaching ability and countermeasures under the background of application-oriented transformation. *Audio-visual*.1.207-208.
- Li Lian. (2019). A preliminary study on the training mode of high-quality innovative and entrepreneurial talents in universities from the perspective of multiple cross-border integration. *Journal of Tongling University*.6.126-129.
- Liu Xinghua. (2014). Research on the Teaching Ability Development of Young Teachers in American Colleges and Universities. *Lanzhou: Northwest Normal University*.105.
- Liu Hongrui. (2014). Research and Enlightenment on the integrated training System of young Teachers in British Universities. *Journal of Jixi University*. 31-32, 43.

- Li Yinfeng. (2017). Research on the Construction of teachers' Innovation and Entrepreneurship Education ability. *Curriculum education research*.210-211.
- Li G Q. (2017). An analysis of teacher construction strategies for innovation and entrepreneurship education. *Heilongjiang Education, Higher Education Research and Evaluation*.4.52-54.
- Li Ming. (2017). Research on Strategies for Improving Innovative Ability of University Teachers. *China Higher Education*, p.78-81.
- Li Xun, Kong Sheng & Zhang Tongjian. (2010). An empirical study of enterprise technology innovation system based on factor analysis. *Journal of Lanzhou Petrochemical Polytechnic*.1 .33-36.
- Liu Qian & Feng Xue. (2017). Construction of evaluation index system for teaching ability of innovation and entrepreneurship of college teachers. *Journal of Agricultural University of Hebei*.,6.100-105 .
- Li Honghua. (2018). Dilemma and transformation: Reshaping the role of college teachers in the era of innovation and entrepreneurship. *Modern educational science*.1.42-47.
- Li Weiming, Li Chunyan & Du Xiaohua. (2013). Ten years of entrepreneurship education in Chinese universities: Evolution, problems and system construction. *Educational research*.42-51.
- Li Xiaochen. (2020). A case study on the practical application of innovation consciousness, among university teachers. *Education and Teaching Forum*, p.83.
- Ma Hui & Zhang Ning. (2020). Research on the growth and development difficulties of young overseas teachers in universities and colleges and countermeasures. *Jiangsu Higher Education*.2.91-95.
- Meng Zhiming & Yang Rixing. (2019). Teaching ability evaluation and promotion path of innovation and entrepreneurship teachers in local universities. *Education and teaching Forum*.13.3-4.
- Peng Yanming, Guo Zhiping & Li Zhengzhong. (2011). A Review of teacher competency research. *Journal of Hubei Normal University (Natural Science Edition)*.1.20.

- Pang Hao, Wang Liyan & Jiang Likai. (2018). Research on improving college teachers' practical teaching ability of innovation and Entrepreneurship: Based on an empirical survey of several colleges and universities in Liaoning Province. *Innovation and entrepreneurship education*.2.60-65.
- Shao Yuehua. (2016). Research on effective integration path of innovation and entrepreneurship education and professional education in Higher vocational colleges. *Vocational and technical education in China*.10.
- Sun Cheng & Wang Zhanjun. (2010). An analysis of the current situation of teachers' structure in Chinese colleges and universities. *University (Academic edition)*., 8.68-77.
- Su Guohong&Yang Shanxiang. (2002). Discussion on creativity retention and incentive mechanism of college teachers. *Journal of Anhui Agricultural University: Social Science Edition*.
- Shen Jian. (2015). College teachers' innovation and entrepreneurship education capacity construction -- Understanding, practice and conception of Jiangsu Province. *Chinese higher education*. 17.11-13.
- Tang Guoming & Chen Chao. (2012). Research on the current situation of college teachers' innovation ability. *Journal of Tianjin Academy of Education and Science*.3. 54-57.
- Wang Yongyan. (2013). Theory and Model of Teacher Professional Development and Innovation Ability Training. Changchun University of Science and Technology *Social Science Edition*.(10) : 176-178. DOI:CNKI:SUN:BJJJ.0.2016-10-043.
- Wang Yan. (2016). A comprehensive analysis on the training of "mass entrepreneurship and innovation" talents in higher vocational colleges. *Frontier economy and culture*.
- Wang Huanmei & Wang Ailing. (2010). Research on the constraints of college teachers' innovation ability. *Journal of Hebei Normal University*. 12.6.
- Wang Minzhi. (2014). On the development path of Teaching Innovation ability of young teachers in colleges and universities. *Contemporary teacher education*.2.38-40.

- Wu Jie-qing, DONG YongYan & ZHOU ZhiJin. (2015). The influence of teachers' creative teaching behavior on creative problem solving of middle school students. *Applied psychology*.21.3.281-288.
- Wang Xiaohong. (2016). Cultivation and Practice of Innovative Ability for College Teachers. *Chinese University Teaching*. 3.77-80.
- Xing Jihong & Gong Huiqun. (2017). Research on the evaluation index system of original innovation ability of universities -- Based on the empirical study of universities in Nanjing. *Jiangsu Higher Education*.7.44-49.
- Xu Guangyong & Ni Xinrui. (2012). The Effect mechanism of teachers' Competence on the Cultivation of college students' entrepreneurial ability -- Based on Interactive Determinism. *Journal of Weifang Institute of Education*.6.8.
- Xiao Junyu. (2016). Research on Teacher Role Transformation and Ability Cultivation under the Background of University Education Reform. *Contemporary educational practice and teaching research*.7.120-121.
- Xu Jianhong. (2008). Research on the Development of University Teachers' Innovation Ability. *Jiangsu: Yangzhou University*.9.
- Xu Yiwen. (2003). A Preliminary study on teachers' innovative quality. *Journal of South-Central University for Nationalities: Humanities and Social Sciences Edition*.8.239-241.
- Yang Zhongtai. (2015) .Analysis on the mechanism and path of teacher professional development under the background of transformation and development of local undergraduate universities. *Journal of Baoji University of Arts and Sciences*.*Social Sciences Edition*.5.122-129.
- Yang Fei, Yao Ye, Zhang Weiqin & Mou Guangqing. (2016,5). 20-22. Some reflections on the improvement of teachers' teaching ability in local undergraduate colleges under the background of transformation. *China light industry education*.
- YangYuhao & Su Xiongwu. (2014). Characteristics and Cultivation ideas of young teachers' innovation ability in colleges and universities -- Based on a survey of colleges and universities in Guangdong Province. *Education Review*.10. 55-57.

- Yang Yuhao. (2010). A Study on the Creative Personality Traits of College Teachers under the Background of Local Culture. *Social psychological science*.25. 126-131.
- Yang Y H. (2010). (in Chinese). A Study on the Creative Personality Traits of college Teachers under the background of local culture. *Social psychological science*. 25 . 126-131.
- Yang Xuan & Tong Xiayu. (2016). Research on teachers' innovation ability in entrepreneurial universities based on organizational characteristics. *Higher agricultural education*.,1.28-33.
- Yang Zhihui & Wang Shuhai. (2019). Research on innovative learning methods based on Big data . *China Distance Education*.21.
- Zhang Qiao. (2018). Discussion on the effective integration path of innovation and entrepreneurship education and professional education. *Modernization of education*.5.24-2.
- Zhang Yongzhong. (2017). Research on strategies for improving practical teaching ability of local college teachers under the background of transformation. *Science and education guide*.,4. 62-63.
- Zhou Jianzhong & Liang Minghui. (2016). The structure and current situation of young college teachers' Innovation ability -- Based on the empirical study of young college teachers in three provinces of Northeast China. *Higher Education Research in Heilongjiang Province*.1.49-52.
- Zhang Lifan. (2014). Reflections on the Cultivation of innovation ability of young teachers in colleges and universities based on knowledge management theory. *Higher Education Research in Heilongjiang Province*.6.84-86.
- Zhang Baokui & Ma Qingzhen. (2013). Three stages of college teacher innovation. *Teaching research*.36 .24-25.
- Zou X H & Zhuang L N. (2012). Research on the selection criteria and categories of entrepreneurship teachers in universities and colleges. *Ethnic education research*.23.60-63.

- Zhang Jinghuan, Chu Yuxia & Lin Chongde. (2008). Structure of Evaluation Scale for teachers' Creative Teaching Behavior. *Psychological development and education*.24.107-112.
- Zhu Xiaoyun, Mei Weihui & Yang Chao. (2012). Difficulties and strategies in the construction of teachers for entrepreneurship education in colleges and universities. *Higher education research in China*.9.82-85.
- Zhang Siqi & Gao Linlin. (2019). Research on the Application of Innovative Learning Strategies in Classroom. *Teaching Educational Research and Experiments*.20 .
- Zhang Hua. (2015). Research on the Ways to Enhance the Innovative Ability of University Teachers. *Contemporary Education Science*.33.

Appendix

Appendix A
List of Specialists and Letters of Specialists invitation
for IOC Verification

List of Specialists for IOC Verification

1. Assoc.Prof.Dr.Jittawisut Wimuttipanya

Degree	Doctor of Curriculum and Instruction
Position	Vice Dean of Faculty of Education, Bansomdejchaopraya Rajabhat University

2. Assist.Prof.Dr.Aree Phasansinthuwong

Degree	Doctor of Public Administration (Public Policy and Public Management)
Position	Public Administration Department, Faculty of Humanities and Social Science, Bansomdejchaopraya Rajabhat University

3. Assist.Prof.Acting Sub Lt.Dr.Nantouchaporn Panarat

Degree	Philosophy Doctor (Public Administration)
Position	Ph.D (Public Administration) Pranakron Rajabhat University

Appendix B
Official Letter



RefNo. MHESI 0643.14/ 696

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

12 July 2023

RE: Invitation to validate research instrument

Dear Assist. Prof. Acting Sub Lt. Dr.Nantouchaporn Panarat

Miss Li Hongque is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "To Study the Vocational Create and Innovation ability of University Teachers in Chongqing"

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 instrument.

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

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000
www.bsru.ac.th
E-mail: grad@bsru.ac.th



Ref.No. MHESI0643.14/ 695

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

12 July 2023

RE: Invitation to validate research instrument

Dear Assist. Prof. Dr.Aree Phasansinhuwong

Miss Li Hongque is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "To Study the Vocational Create and Innovation ability of University Teachers in Chongqing"

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Ref.No. MHESI 0643.14/ 694

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1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

12 July 2023

RE: Invitation to validate research instrument

Dear Assoc. Prof. Dr.Jittawisut Wimuttipanya

Miss Li Hongque is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "To Study the Vocational Create and Innovation ability of University Teachers in Chongqing"

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

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

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Appendix C
Research Instrument

Questionnaire Form

Questionnaire of vocational creativity and Innovation ability of university teachers in Chongqing

Dear teacher:

Hello! The purpose of this survey is to understand the vocational creativity and innovation ability of college teachers in Chongqing. The questionnaire is anonymous. We guarantee the confidentiality of all the information you fill in. All data are used for research and comprehensive statistical processing only. Please answer according to your actual situation, don't omit. Here, I would like to express my heartfelt thanks to you!

Note: All multiple choice questions are single choice questions unless otherwise noted.

Part I

- 1: Name of your university: _____
- 2: Name of your department: _____
- 3: Your gender : Male female
- 4: Your age: _____
- 5: Your specialty: _____
- 6: Your title: _____
- 7: Your native place: _____

Part II

The Questions of the Independent Variable. Please select the most appropriate option according to your actual situation (please tick √ in the corresponding field).

NO.	Content	Very much agree	quite agree	neutrality	disagree	strongly disagree
1.	Innovate learning system					

NO.	Content	Very much agree	quite agree	neutrality	disagree	strongly disagree
A	Do you think that the age have the effect on vocational create and innovation ability of university teachers?					
B	Do you think that the gender have the effect on vocational create and innovation ability of university teachers?					
C	Do you think that the education background have the effect on vocational create and innovation ability of university teachers?					
D	Do you think that the income have the effect on vocational create and innovation ability of university teachers?					
E	Do you think that the department have the effect on vocational create and innovation ability of university teachers?					
F	Do you think that your major have the effect on vocational create and innovation ability of university teachers?					
G	Do you think that the professional status have the effect on vocational create					

NO.	Content	Very much agree	quite agree	neutrality	disagree	strongly disagree
	and innovation ability of university teachers?					
H	Do you think that the teaching level have the effect on vocational create and innovation ability of university teachers?					
I	Do you think that the participate in innovation practice have effect on vocational create and innovation ability of university teachers?					
J	Do you think that the preside over scientific research projects have effect on innovation and entrepreneurship?					
K	Do you think that the active learning have effect on vocational create and innovation ability of university teachers?					
L	Do you think that the personnel assessment system have effect on vocational create and innovation ability of university teachers?					

Part III

The Questions of the dependent variable. Please select the most appropriate option according to your actual situation (please tick ✓ in the corresponding field).

NO.	Content	Very much in line	More in line	Basically	Not quite	Very inconsistent
2. Innovation consciousness						
A	Do you think that innovation motivation make university teachers have more innovation consciousness?					
B	Do you think that innovation interest make university teachers have more innovation consciousness?					
C	Do you think that innovation emotion make university teachers have more innovation consciousness?					
D	Do you think that innovation volition make university teachers have more innovation consciousness?					
E	Do you think divergent thinking is conducive to improving the innovative thinking of university teachers?					
F	Do you think logical thinking is conducive to improving the innovative thinking of university teachers?					
G	Do you think reverse thinking is conducive to improving the innovative thinking of university teachers?					

NO.	Content	Very much in line	More in line	Basically	Not quite	Very inconsistent
H	Do you think critical thinking is conducive to improving the innovative thinking of university teachers?					
3. Innovative skills						
A	Do you think learning ability can improve the creative skills of university teachers?					
B	Do you think cooperation ability can improve the creative skills of university teachers?					
C	Do you think practice ability can improve the creative skills of university teachers?					
D	Do you think innovation ability can improve the creative skills of university teachers?					
E	Do you think analytical ability can improve the creative skills of university teachers?					
F	Do you think imagination ability can improve the creative skills of university teachers?					
G	Do you think critical ability can improve the creative skills of university teachers?					
H	Do you think problem solving ability can improve the creative skills of university					

NO.	Content	Very much in line	More in line	Basically	Not quite	Very inconsistent
	teachers?					
I	Do you think organization and coordination ability can improve the creative skills of university teachers?					
J	Do you think teaching ability can improve the creative skills of university teachers?					
K	Do you think student recognition ability can improve the creative skills of university teachers?					
L	Do you think mental adjustment ability can improve the creative skills of university teachers?					
4.Innovation Achievement						
A	Do you think the teaching achievement can reflect the Innovations achievement of university teachers?					
B	Do you think the scientific research achievement can reflect the Innovations achievement of university teachers?					
C	Do you think the team achievement can reflect the Innovations achievement of university teachers?					
D	Do you think the students achievement can reflect the					

NO.	Content	Very much in line	More in line	Basically	Not quite	Very inconsistent
	Innovations achievement of university teachers?					
E	Do you think that the government policy have an effect on vocational create and innovation ability of university teachers?					
F	Do you think that the school policy have an effect on vocational create and innovation ability of university teachers?					
G	Do you think of the degree to which schools have implemented the national policy on creativity and innovation in the university teachers?					
H	Do you think your university's policy on creativity and innovation in the university teachers has affected you?					

Part IV

Please write an appropriate answer according to the situation

1: Your career innovation achievements include:

2. Other factors affecting your career innovation include:

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

Interview Form

Interview for vocational creativity and Innovation of university teachers in Chongqing

Explanation

The purpose of this interview is to understand the professional creativity and innovation ability of university teachers in Chongqing. The interview content is selected from the following questions. Ensure that all information you provide is for research purposes only, and allow for recording of the process through audio or video means. In fact, the interviewee must be an in-service teacher from a university in Chongqing, and retired teachers are currently not included in the scope of this survey. 2) Respondents prioritize teachers who actively complete the "Chongqing University Teacher Career Creation and Innovation Questionnaire".

Part I Identity of the interviewee (personal information)

- 1: Name of your university: _____
- 2: Name of your department: _____
- 3: Your gender : Male female
- 4: Your age: _____
- 5: Your specialty: _____
- 6: Your title: _____
- 7: Your native place: _____

Part II Interview outline

Content	Question
Understanding and perspectives	1.What do you think is creativity and innovation?

on the professional creativity and innovation ability of university teachers	What do you think is the professional creativity and innovation of university teachers in Chongqing?
Evaluation of Professional Creativity and Innovation ability of University Teachers	2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?
The Factors Influencing the Professional Creativity and Innovation ability of College Teachers	3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?
The Development of Professional Creativity and Innovation of College Teachers	4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?
Evaluation of Guidelines for Professional Creativity and Innovation of College Teachers	5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?
Total	5

Evaluation Form

Guideline Quality Evaluation Form

Guideline For Developing the Vocational Create and Innovation Ability of University Teachers in Chongqing

Introduction

1.This evaluation form is intended to serve as a tool for evaluating the Introduction adaptability and feasibility of "Guideline for improving the professional creativity and innovation of university teachers in Chongqing".

2.The evaluation form is divided into 3 parts:

Part 1. The suitable for the guidelines

Part 2. Adaptability of the guidelines

Part 3. Feasibility of the guidelines

3. Please evaluate the adaptability and feasibility of each item in the evaluation form based on your feedback. Assessing the adaptability and feasibility of this guide will be of great benefit to the cultivation and development of professional innovation abilities for teachers in Chongqing's universities.

Part 1.The suitable for the guideline

No.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
	The overview of guideline						
1	The relationship of philosophy, concepts and theories used in the guideline						
2	The completeness of the items of the guideline.						
3	The connection/relationship between the items of the guideline.						

Part 2. Adaptability of the guidelines

No.	Evaluation Items	Fitness Level	Suggestion
-----	------------------	---------------	------------

		5	4	3	2	1	
Every item of guideline							
1	The basic concepts of the guideline.						
2	The goal of the guideline.						
3	The scope of the guideline.						
4	Application of guideline.						
5	Evaluation of the guideline.						

Part 3. Feasibility of the guideline

No.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
Innovative Learning System							
1	Establish an innovative talent pool for university teachers.						
2	Establish an innovative learning team						
3	Conduct innovative learning training.						
4	Optimize the content of the innovative learning system.						
5	Establish a proactive innovation incentive mechanism.						
6	Establish a comparison of innovative learning outcomes.						
Innovation Consciousness							
1	Strengthen the ideological construction of the teaching staff.						
2	Promote the construction of an innovative atmosphere in universities.						
3	Encourage teachers to innovate.						
4	Conduct innovative thinking training.						
5	Continuously promote the establish -ment of teacher innovation projects.						
6	Establish a library of teacher innovation projects.						
7	Open up the application channel for teacher innovation projects.						
8	Cultivate innovative thinking habits among						

No.	Evaluation Items	Fitness Level					Suggestion
		5	4	3	2	1	
	teachers.						
Innovative Skills							
1	Cultivate teachers' innovative comprehensive learning ability.						
2	Encourage teachers to carry out innovative cooperation.						
3	Encourage seizing opportunities for innovative practice.						
4	Establish a typical model teacher.						
5	Create a system for teachers to learn innovative skills.						
6	Improve teachers' psychological adaptability.						
7	Cultivate teachers' organizational and coordination abilities.						
8	Enhance the display of teachers' innovative skills.						
Innovation Achievement							
1	Encourage teachers to achieve scientific research results.						
2	Motivate teachers to achieve teaching outcomes.						
3	The established a sound system for identifying innovative achievements.						
4	The school regularly releases and implements policies.						
5	Encourage teachers to collaborate and innovate						
6	The student's grades guided are linked to innovative achievements.						
7	Regularly watch exhibitions, exchange and learn innovative achievements.						
8	Build an innovative team of teachers.						

More opinions and suggestions

.....
.....
.....
.....

Appendix D
The Results of the Quality Analysis of Research
Instruments

IOC FORM

IOC

Content Matching Checklist

Guideline for developing the vocational create and innovation ability of
university teachers in Chongqing

The purpose of this questionnaire is to understand the professional creativity and innovation ability of college teachers in Chongqing. The questionnaire is anonymous, and all data are only used for research and comprehensive statistical processing.

Clarification: Qualified personnel are required to consider the consistency, comprehensiveness, and completeness of the issue, and define and check in the rating box based on the actual situation. The scores are as follows.

+1 represents: The problem is consistent with the definition of the required measurement

0 represents: Uncertain whether the problem meets the definition to be measured.

-1 represents: The problem is inconsistent with the measurement definition.

NO.	Problem	Review Results			Average score
		E1	E2	E3	
Part I Identity of the interviewee (personal information)					
1	Q1 Name of your university	1	1	1	1
2	Q2 Name of your department	1	1	1	1
3	Q3 Your gender	1	1	1	1
4	Q4 Your age	1	1	1	1
5	Q5 Your specialty	1	1	1	1
6	Q6 Your title	1	1	1	1
7	Q7 Your native place				

NO.	Problem	Review Results			Average score
		E1	E2	E3	
Part II					
1. Innovate learning system					
8	QA Do you think that the age have the effect on vocational	1	1	0	0.67

NO.	Problem	Review Results			Average score
		E1	E2	E3	
	create and innovation ability of university teachers?				
9	QB Do you think that the gender have the effect on vocational create and innovation ability of university teachers?	1	0	1	0.67
10	QC Do you think that the education background have the effect on vocational create and innovation ability of university teachers?	1	1	1	1
11	QD Do you think that the income have the effect on vocational create and innovation ability of university teachers?	1	1	1	1
12	QE Do you think that the department have the effect on vocational create and innovation ability of university teachers?	1	1	1	1
13	QF Do you think that your major have the effect on vocational create and innovation ability of university teachers?	1	1	1	1
14	QG Do you think that the professional status have the effect on vocational create and innovation ability of university teachers?	1	1	1	1
15	QH Do you think that the teaching level have the effect on vocational create and innovation ability of university teachers?	1	1	1	1
16	QI Do you think that the	1	1	1	1

NO.	Problem	Review Results			Average score
		E1	E2	E3	
	participate in innovation practice have effect on vocational create and innovation ability of university teachers?				
17	QJ Do you think that the preside over scientific research projects have effect on innovation and entrepreneurship?	1	1	1	1
18	QK Do you think that the active learning have effect on vocational create and innovation ability of university teachers?	1	1	1	1
19	QL Do you think that the personnel assessment system have effect on vocational create and innovation ability of university teachers?	1	1	1	1

Part III

1. Innovation consciousness

20	QA Do you think that innovation motivation make university teachers have more innovation consciousness?	1	1	1	1
21	QB Do you think that innovation interest make university teachers have more innovation consciousness?	1	1	1	1
22	QC Do you think that innovation emotion make university teachers have more innovation consciousness?	1	1	0	0.67
23	QD Do you think that innovation	1	1	1	1

NO.	Problem	Review Results			Average score
		E1	E2	E3	
	volition make university teachers have more innovation consciousness?				
24	QE Do you think divergent thinking is conducive to improving the innovative thinking of university teachers?	1	1	1	1
25	QF Do you think logical thinking is conducive to improving the innovative thinking of university teachers?	1	1	1	1
26	QG Do you think reverse thinking is conducive to improving the innovative thinking of university teachers?	1	1	1	1
27	QH Do you think critical thinking is conducive to improving the innovative thinking of university teachers?	1	1	1	1

3. Innovative skills

28	QA Do you think learning ability can improve the creative skills of university teachers?	1	1	1	1
29	QB Do you think cooperation ability ability can improve the creative skills of university teachers?	1	1	1	1
30	QC Do you think practice ability ability can improve the creative skills of university teachers?	1	1	1	1
31	QD Do you think innovation ability ability can improve the creative skills of university	1	1	1	1

NO.	Problem	Review Results			Average score
		E1	E2	E3	
	teachers?				
32	QE Do you think analytical ability can improve the creative skills of university teachers?	1	1	1	1
33	QF Do you think imagination ability can improve the creative skills of university teachers?	0	1	1	0.67
34	QG Do you think critical ability can improve the creative skills of university teachers?	1	1	0	0.67
35	QH Do you think problem solving ability can improve the creative skills of university teachers?	1	1	1	1
36	QI Do you think organization and coordination ability can improve the creative skills of university teachers?	1	1	1	1
37	QJ Do you think teaching ability can improve the creative skills of university teachers?	1	1	1	1
38	QK Do you think student recognition ability can improve the creative skills of university teachers?	1	1	0	0.67
39	QL Do you think mental adjustment ability can improve the creative skills of university teachers?	1	1	1	1
4. Innovation Achievement					
40	QA Do you think the teaching achievement can reflect the Innovations achievement of university teachers?	1	1	1	1

NO.	Problem	Review Results			Average score
		E1	E2	E3	
41	QB Do you think the scientific research achievement can reflect the Innovations achievement of university teachers?	1	1	1	1
42	QC Do you think the team achievement can reflect the Innovations achievement of university teachers?	1	1	1	1
43	QD Do you think the students achievement can reflect the Innovations achievement of university teachers?	1	1	1	1
44	QE Do you think that the government policy have an effect on vocational create and innovation ability of university teachers?	1	1	1	1
45	QF Do you think that the school policy have an effect on vocational create and innovation ability of university teachers?	1	1	1	1
46	QG Do you think of the degree to which schools have implemented the national policy on creativity and innovation in the university teachers?	1	1	1	1
47	QH Do you think your university's policy on creativity and innovation in the university teachers has affected you?	1	1	1	1

Part IV

Open-ended problem

NO.	Problem	Review Results			Average score
		E1	E2	E3	
48	Q1 Your career innovation achievements include	1	1	1	1
49	Q2 Other factors affecting your career innovation include	1	1	1	1

End of questionnaire

A research tool expert (.....)

Signed.....

Reliability Analysis

1. Table of Reliability Analysis

variable item	Cronbach's Alpha	Number of terms
---------------	------------------	-----------------

1	Innovate learning system	0.856	11
2	Innovation consciousness	0.888	10
3	Innovation skills	0.913	11
4	Innovation achievement	0.903	10
	Average	0.89	

3. Table of Reliability Analysis of Guidelines Quality Evaluation

	variable item	Cronbach's Alpha	Number of terms
1	The suitable for the guideline	0.898	3
2	Adaptability of the guidelines	0.957	5
3	Feasibility of the guideline	0.943	4
	Average	0.933	

The transcribed texts of interviews

The transcribed texts of 30 interviews are as follows:

Interview 1

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovation is like integrating modern new ideas, perspectives, and cultures on the basis of traditional culture, creating new ideas, cultures, achievements, etc. In schools, especially in universities, innovation becomes even more important. It requires university teachers to have new thinking, not limited to tradition, but to have the habit of free learning and be able to keenly discover new academic things in order to bring these new knowledge to students.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

My professional creativity and innovation have had a significant impact on my work. I myself work in student management and also take two elective courses for college students on a part-time basis. Creativity must be used in daily work, otherwise the workload will be large and the work area will be wide, and one will be too busy. At the same time, creative work is also conducive to achieving results. The innovation ability of university teachers is very important, affecting both themselves and students.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Thinking patterns are very important, and there are still many teachers who have fixed thinking. Therefore, to improve, the first step is to change their thinking habits. We need to have innovative thinking patterns and work hard ourselves. If we can have a harmonious family atmosphere, we can better reflect creative development.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

The incentive method is crucial. We now have a family and the pressure is relatively high. The purpose of our career is still for the family, so it's best to reward first and attract first. Secondly, it is definitely necessary to leave enough time. There is still a lot of room for improvement in Chongqing's current creative development, and there are too many suggestions. Policy care and personal efforts cannot be separated.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

At present, I have not seen any specific documents on the policies and guidelines for the professional creativity and innovation of university teachers in

Chongqing. There may be some, but they have not been widely promoted, so I am not very familiar with them. The development of innovative capabilities encountered is also not systematic, so it is recommended to first improve the relevant system and then follow up on specific measures, such as material rewards, scientific research certification, etc.

Interview 2

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Creativity should refer to the ability to have new ideas, discover and create new things. The psychological qualities necessary to complete a creative activity. It is a complex and optimized combination of multiple factors such as knowledge, intelligence, ability, and excellent personality traits. The professional creativity and innovation of university teachers in Chongqing are also the same.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

For me, creativity is essential. As a university teacher, it is necessary to continuously learn and explore new teaching methods and methods, improve teaching effectiveness and quality, and cultivate students' innovative and practical abilities. It is also necessary to participate in scientific research projects simultaneously, generate innovative results, and promote the progress and development of disciplines and fields. In short, creativity is an important support for the professional development of university teachers, and also an important force in promoting social progress and development. As university teachers, it is necessary to place them in a very important position.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The academic atmosphere and support provided by universities can stimulate teachers' creativity and innovation, as well as limit their creativity and innovation. For example, providing sufficient research funding, laboratory facilities, and technical support can promote the realization of teachers' creativity and innovation ability, but without it, development becomes much more difficult.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Universities can establish a scientific, objective, and comprehensive evaluation mechanism to include the professional creativity and innovation of teachers in the evaluation scope, and motivate and reward innovative and creative teachers.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Schools should reasonably guide teachers to improve their ability to think and solve problems. Creating new ideas requires the ability to think and solve problems, and through learning and practice, cultivate the ability to think and solve problems.

Interview 3

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

I believe that creativity is a series of complex and high-level psychological activities that involve a high level of physical and intellectual tension, as well as creative thinking at the highest level. Everyone wants to have it.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Creativity is the core ability of university teachers. As the main force of knowledge and technological innovation, university teachers need to possess creativity, constantly explore and discover new problems, propose new solutions and ideas, generate innovative ideas and perspectives, and promote the progress and development of disciplines and fields. At the same time, I believe that creativity requires an open and diverse way of thinking. University teachers need an open, flexible, and diverse way of thinking, daring to challenge tradition and authority, constantly exploring and trying new methods and means, in order to produce innovative results.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

I believe that the personal qualities and professional knowledge of teachers are key factors in enhancing their professional creativity and creativity. Teachers need to have a broad knowledge background, strong thinking abilities, and creativity in order to produce innovative results in their research field.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are

any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Universities can provide necessary resource support, such as time, funds, equipment, etc., to support teachers in conducting innovative and creative research and work. Universities can encourage teachers to participate in academic conferences and activities, expand their academic exchange circle, and increase their academic experience and knowledge

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Provide conditions for expanding knowledge and skills, as this is the foundation of creation. Expanding the scope of knowledge and skills can increase the diversity of creativity. We also need to learn to accept challenges and risks, and creativity means accepting challenges and risks. Be brave enough to try new things and accept failure.

Interview 4

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

I happen to study this and have a lot of understanding of creativity, such as creativity awareness being the understanding of creativity; Creative thinking is a thinking activity generated during the creative process; Creativity skills are skill activities generated during the creative process; Creative personality is a personality characteristic that manifests during the creative process, including independence, self-confidence, and adventurous spirit.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

University teachers need to constantly learn and practice, maintain sharp insight and foresight, accumulate knowledge and experience, improve their innovative and practical abilities, and produce innovative results. The spirit of teamwork and collaboration, and work together with others to achieve innovation and development, leverage their respective strengths and strengths, and produce better innovative results are essential.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The personal motivation and willingness of teachers are key factors in enhancing their professional creativity and innovation. Teachers need to have a strong

work enthusiasm, innovative spirit, and thirst for knowledge in order to continuously explore and try new methods and technologies, thereby producing innovative results.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Universities can provide training and further education opportunities to help teachers improve their professional knowledge and skills, and cultivate their creativity and innovation abilities. We can establish innovation platforms and teams, encourage teachers to participate, leverage their strengths and strengths, and produce better innovation results.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Innovative thinking is the key to enhancing innovation. By cultivating innovative thinking such as curiosity, reflection, adventure, and diversity, it promotes the improvement of innovation.

Interview 5

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

In many fields of science, technology, literature, and art, innovation is needed, and creativity is the talent. The cultivation and development of creativity are of great significance for the development of individuals and society. On an individual level, creativity can help individuals discover their potential, enhance their creativity and competitiveness; In terms of society, creativity can promote social progress and development, and promote social innovation and change.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

My professional creativity and innovation have had a positive impact on my work. Specifically, they help me better complete teaching and research tasks, improve the quality and efficiency of my work. In my teaching, I explore new teaching methods and means to improve teaching effectiveness and quality, and cultivate students' innovative and practical abilities.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

A good work environment and teamwork have the greatest impact. I can stimulate the creativity and innovation of teachers by sharing knowledge, experience, and ideas in a team, in order to produce better innovative results.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Schools should provide sufficient research resources, including research funding, laboratory facilities, data, etc., to support teachers in conducting innovative research.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Accumulating knowledge and experience, innovation requires a certain level of knowledge and experience as support. By accumulating knowledge and experience, we can better identify and solve problems, and propose innovative solutions. By actively observing and thinking, discover problems and opportunities in life, and innovate solutions.

Interview 6

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovation refers to the ability of an individual or organization to continuously innovate in thinking, concepts, methods, technology, products, and other aspects, adapt to environmental changes, and achieve self-development and progress.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

In scientific research, I actively explore new fields and directions, propose new solutions and ideas, and produce innovative results. At the same time, my creativity and innovation also help me collaborate with colleagues to achieve innovation and development, and improve the overall strength of the team. In short, my professional creativity and innovation have had a positive impact on my work, enabling me to maintain an advantage in competition and make greater contributions to the school and society.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

I believe that personal qualities and professional knowledge are key factors in improving their professional creativity and innovation. We need to have a broad knowledge background, strong thinking ability, and creativity in order to produce innovative results in their research field. Scientific research is the most intuitive criterion for creativity

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Provide professional training and development opportunities to help teachers improve their professional skills and knowledge level, in order to better conduct innovative research and teaching. Schools should establish an atmosphere that encourages innovation, encourages teachers to try new teaching methods and methods, and explores new research directions and fields

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Innovation is not an activity that relies on emotional decision-making, but requires systematic methods and tools to support it. Learn innovative methods and tools such as design thinking, brainstorming, agile development, and lean entrepreneurship to enhance innovation.

Interview 7

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovation is a key factor for the success of an individual or organization, and the innovation of university teachers is related to their own development and also affects the cultivation of future talents in our country.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Creativity has a significant impact on work, as it can generate new ideas and solutions to solve problems or innovate better methods. Improving work quality and efficiency can lead to better completion of work.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The academic atmosphere and support provided by universities can stimulate teachers' creativity and innovation. For example, providing sufficient research funding, laboratory facilities, and technical support can promote teachers' creativity and innovation ability. What I currently lack is the atmosphere and support.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Encourage collaboration between teachers from different disciplines, promote interdisciplinary knowledge exchange and collision of ideas, and thus stimulate innovative thinking.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Understand the basic principles and knowledge of relevant fields, possess the ability to think creatively and independently, possess practical experience, be able to discover and solve problems in practice, and create new results, possess learning ability, and have a spirit of cooperation. Only then can we help people apply innovative thinking, generate innovative ideas, and create new results in practical activities, promoting social development and progress.

Interview 8

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Having initiative and enthusiasm to explore and try new things, being able to generate new ideas and solutions, constantly learning and absorbing new knowledge and skills, maintaining updates and progress, being able to collaborate with others, leveraging team strength, completing innovative tasks together, being able to bravely accept challenges and face failures, and so on, are all forms of creativity. The creativity of university teachers cannot be separated.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Creativity plays a significant role in my work, helping me continuously learn and progress, improving my professional qualities and abilities, enhancing competitiveness, and maintaining an advantage in competition. In short, creativity is an essential ability in my work, and problem-solving is the key to innovating better methods and results.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The professional creativity and innovation of university teachers are closely related to the development of disciplines and fields. The development of new disciplines and fields provides teachers with more research opportunities and challenges, thereby promoting their creativity and innovation ability.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Maintain a positive mindset: A positive mindset can stimulate our creativity, making us more optimistic and confident. We need to always maintain an optimistic mindset, full of enthusiasm and confidence in life.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Providing the conditions for forming a teaching team, collaborating with others can bring new ideas and perspectives, stimulate creativity, and achieve better results.

Interview 9

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

The cultivation and development of innovation require continuous learning and practice, constantly challenging oneself and breaking through one's own limits, as well as having a good spirit of teamwork and collaboration, and working together with others to achieve innovation and development. Universities pay great attention to the guidance and development of innovation, and have better conditions for creation.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

By constantly exploring and discovering new problems, proposing new solutions and ideas, generating innovative ideas and perspectives, and promoting the progress and development of disciplines and fields, I am currently demanding innovation in my work. My goal is to develop my creativity, cultivate students' innovative and practical abilities, contribute to cultivating innovative talents, and realize my life value.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

I believe that teachers' personal motivation and willingness are key factors in enhancing their professional creativity and innovation. Teachers need to have a strong work enthusiasm, innovative spirit, and thirst for knowledge in order to continuously explore and try new methods and technologies, thereby producing innovative results.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Continuously challenging ourselves allows us to continuously progress and grow, thereby enhancing our creativity. Can try new things, learn new skills, accept new challenges, etc.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Encourage everyone to maintain an open mindset and accept new ideas and perspectives. Don't give up easily, maintain curiosity and exploratory spirit towards the unknown. Creation requires continuous learning and self reflection. Through continuous learning and self reflection, one can discover their strengths and weaknesses, and continuously improve and improve.

Interview 10

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

University teachers, as the main force of knowledge and technological innovation, play an important role in promoting social progress and development. Therefore, the creativity of university teachers is crucial for cultivating innovative talents and promoting social innovation and progress.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

I believe that the professional creativity and innovation of university teachers need to be fully recognized and supported, and they need to constantly learn and practice, continuously improve their innovation and practical abilities. What has a significant impact on me is the scientific research achievements of teachers, which is an important indicator to measure the professional creativity of teachers, including

publishing papers, obtaining patents, hosting or participating in scientific research projects. Other aspects are also important, but for teachers, research and innovation are important.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The professional creativity and innovation of university teachers are influenced by various factors. Factors such as personal qualities and professional knowledge, work environment and teamwork, academic atmosphere and support, disciplinary and field development, and personal motivation and willingness may all enhance or limit teachers' creativity and innovation. I think schools need to provide a good environment and support.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Learning knowledge from different disciplines can inspire our creativity, as different disciplines have different ways of thinking and perspectives, which can stimulate our thinking inspiration. Collaborating with others allows us to think about problems from different perspectives, stimulate our creativity, and generate new ideas and solutions.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Reading more, learning more, and mastering more knowledge and skills are the foundation for enhancing innovation, expanding one's knowledge and skill level. Continuously practice and train. By practicing and training more, one can improve their hands-on and analytical abilities, thereby promoting innovation.

Interview 11

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

University teachers, as the main force of knowledge and technological innovation, play an important role in promoting social progress and development. Therefore, the innovation ability of university teachers is of crucial significance for cultivating innovative talents and promoting social innovation and progress. Nowadays,

almost every student is mentioning it, and Chongqing has been doing it for a few years, and it's also quite fast at the hair salon.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Promoting career development can help me continuously learn and progress, improve my level of creativity, and enhance my professional work ability. The professional creativity and innovation of university teachers are important support for their career development, with a broader perspective, which can promote social progress and development. Therefore, I believe that every job is important, and innovation is more important.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The most important impact of innovation consciousness is to abandon old ideas and teachers use innovative methods to solve problems, thus producing new results. Only in practice can innovative ideas and achievements be verified.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Trying new experiences and practices can help us better understand different situations and practical application scenarios, thus enabling us to innovate better.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

At the municipal level in Chongqing, we will encourage and inspect universities to improve their evaluation mechanisms, establish an innovation and quality oriented evaluation system, encourage university teachers to conduct innovative research and teaching, and improve their professional creativity and innovation ability.

Interview 12

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Continuously learning new knowledge, understanding the cutting-edge trends of the subject, expanding the scope of knowledge, and improving one's overall quality. Maintain curiosity, explore new teaching methods and means, improve teaching

effectiveness and quality, and cultivate students' innovative and practical abilities. These should be the basic creative requirements of university teachers

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

On the one hand, we can strive to improve our creative abilities through our own willpower, and on the other hand, we also hope that the school can improve its teaching quality and academic level, and enhance its competitiveness. In order to improve the innovation ability level of teachers. Teachers' participation in social services, such as consultation, research, and social activities, can transform their professional creativity into practical contributions and also reflect their professional creativity.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Having a solid foundation of knowledge, understanding the basic principles and knowledge of relevant fields; Having the ability to think creatively and independently, able to think and solve problems from different perspectives; Having practical experience, able to discover and solve problems in practice, and create new results. This is the most influential.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Continuously challenging ourselves can enable us to continuously improve and grow, thereby enhancing our innovation ability and level.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Provide innovation and entrepreneurship support for university teachers, including entrepreneurial funds, legal advice, technical support, etc., encourage teachers to convert research results into commercial applications, and promote technological innovation and economic development.

Interview 13

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

The most important thing should be innovative and transformative ideas that can break through conventional thinking and fixed patterns, producing new, unique, and unique ideas or things. Creative ideas often come from the collision of inspiration and creativity, requiring thinkers to have flexible thinking and an open mindset. The combination of artificial intelligence and human intelligence has led to a new form of intelligence, known as "human-machine integrated intelligence". There is also the use of solar energy technology to design a solar panel that can automatically track the sun, improve the efficiency of solar energy utilization, and so on, which I couldn't imagine before, so innovation is too useful.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

In work, innovation in teaching methods, methods, and content can reflect the professional creativity of teachers, such as developing new courses, adopting new teaching techniques or methods, etc. At the same time, teachers cultivate students' creativity and innovative spirit by guiding them to engage in creative thinking, problem-solving, and methods, which is also an important aspect of measuring teachers' professional creativity.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Continuously learning new knowledge and skills, maintaining updates and progress; Having a collaborative spirit, able to collaborate with others, leverage team strength, and work together to complete innovative tasks; Be able to discover and solve problems in practice, and create new results.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Only by continuously learning new knowledge and skills can we broaden our horizons and ideas, and thus innovate better.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Encourage universities to establish an innovative cultural atmosphere, encourage teachers to try new teaching methods and methods, explore new research

directions and fields, and encourage teachers to conduct innovative research and teaching.

Interview 14

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Improve one's scientific research ability, discover and solve scientific problems, and generate innovative results. Strengthen team cooperation, collaborate with other teachers, jointly complete teaching and research tasks, and achieve complementary advantages and resource sharing. Dare to accept challenges and face failures, constantly explore new fields, and generate innovative ideas and results. These are all considered creativity, and university teachers should be at the forefront.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

There is a lot of talk about the professional creativity of teachers now, for example, it can be measured through multiple aspects, including scientific research achievements, teaching innovation, student creativity cultivation, and social services. These aspects can reflect the professional creativity of teachers, and are also an important basis for teacher evaluation and rewards. I believe that it can help students better understand and impart knowledge, improve teaching methods and means, create creative teaching content, and improve teaching quality.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The most important aspect of an innovative learning system is that it is a learning system and form that should adapt to the ever-changing future society. In the process of learning knowledge, one should not adhere to books, superstition authority, or conform to conventional rules. Based on existing knowledge, combined with learning practices and future ideas, one should think independently, explore boldly, be unique, and focus on cultivating innovative spirit and ability.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Accepting different perspectives and ways of thinking can help us better understand different ways of thinking and explore innovation.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Chongqing has been actively promoting education reform, including implementing the spirit of the National Education Conference and the "Implementation Opinions on Deepening Education Reform and Enhancing Innovation Ability of Universities in Chongqing", promoting the development of professional creativity and innovation ability of university teachers. But the popularization is still far from enough, and it needs to be vigorously promoted.

Interview 15

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Our school has not yet attached great importance to the professional creativity of university teachers. We hear discussions several times a year, but there are no follow-up measures. I believe that we need to constantly learn and practice, constantly challenge ourselves and break our limits. At the same time, we also need to have a good teamwork and collaborative spirit, work together with others to achieve innovation and development, and maximize the role of creativity.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Universities should actively support and encourage the creativity of teachers, providing them with necessary resources and support, as creativity has a profound impact on the work of university teachers. It can help teachers improve teaching quality and academic level, promote the progress of disciplines and fields, and cultivate innovative talents, which is very beneficial for schools and teachers themselves.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The cultivation and development of innovative consciousness, is of great significance for the development of individuals and society. On an individual level, innovation consciousness, can help individuals discover their potential, enhance their creativity and competitiveness; In terms of society, innovation consciousness can promote social progress and development, and promote social innovation and change.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are

any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Establishing an innovative cultural atmosphere in our work can better stimulate our innovative thinking and ability, and generate more innovative results.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Chongqing should encourage universities to establish innovation teams, including introducing high-level talents and cultivating local talents, to improve the innovation ability and professional creativity of university teachers.

Interview 16

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

I have learned from university teachers in Chongqing that they can improve their innovation ability and academic level by participating in innovative thinking training courses, academic exchange conferences, seminars, and other means; College teachers in Chongqing can explore new teaching methods and means to improve teaching effectiveness and quality, and cultivate students' innovative and practical abilities.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

In my work, creativity can better understand students' needs and characteristics, adopt innovative teaching methods and means, improve teaching quality and effectiveness, and creatively increase the fun of communicating with students.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Classroom innovation, practical innovation, interdisciplinary innovation, online learning innovation, and problem-solving innovation are essential prerequisites for problem-solving, and their development should be actively promoted to provide a better environment and support for the innovative learning and innovative ability cultivation of university teachers.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Establish an innovation reward mechanism: Establish an innovation reward mechanism to reward teachers who have achieved outstanding results in innovative research and teaching, encourage teachers to conduct innovative research and teaching, and improve their professional creativity and innovation ability.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Chongqing can provide more training and support to help university teachers improve their professional creativity and innovation ability. For example, regular innovation ability training, career development training, etc. can be held to help teachers improve their own quality and abilities.

Interview 17

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Creativity is needed in all walks of life, and higher education teachers should have environmental support, so the performance of creativity is also the best. College teachers in Chongqing can explore new teaching methods and means to improve teaching effectiveness and quality, and cultivate students' innovative and practical abilities.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

I believe that innovative research and achievements should be used to promote the advancement of academic frontiers and generate new knowledge and technological achievements. The concentration of creativity among university teachers is the greatest strength.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The ability to apply innovative thinking, generate innovative ideas, solve practical problems, and create new results in practical activities. Meanwhile, factors such as creative thinking, innovative design, innovative experiments, and innovative production also have an impact, which can be summarized as innovative skills.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Provide professional development opportunities for teachers, including participation in international conferences, academic exchanges, Visiting scholar, etc., to help teachers understand the latest academic trends and research results, and improve their professional level and innovation ability.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

We can strengthen the construction of innovation teams, encourage universities to establish more innovation teams, and improve their research and innovation capabilities. At the same time, it can also provide more funds and support for innovation teams, promoting their development and growth.

Interview 18

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovation should have a spirit of adventure. Universities in Chongqing can encourage teachers to have innovation and a spirit of adventure, be brave in accepting challenges and facing failures, constantly explore new fields, and generate innovative ideas and results. It is also possible to actively participate in scientific research projects, improve one's research capabilities, discover and solve scientific problems, and generate innovative results.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

As a university teacher, I should strive to promote the development of disciplines and fields through continuous innovation and exploration, and make greater contributions to the academic community and society. The most important requirement for oneself is the cultivation of innovation ability. Currently, there is still a shortage in work, and I hope to improve the system as soon as possible.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Some universities in Chongqing implement a team building mechanism of "recruitment and introduction", which determines team members through open selection, three-dimensional inspection, and precise introduction procedures, and optimizes the structure of teacher teaching innovation teams. This mechanism helps to attract and retain teachers with innovative spirit and professional qualities, thereby enhancing their professional creativity and innovation ability.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Establish an innovative cultural atmosphere: Schools should establish a cultural atmosphere that encourages innovation, encourages teachers to try new teaching methods and methods, explores new research directions and fields, and encourages teachers to conduct innovative research and teaching.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

We can optimize the evaluation mechanism, establish a more scientific, fair, and transparent evaluation mechanism, and encourage university teachers to conduct innovative research and teaching. For example, an innovation and quality oriented evaluation system can be established to encourage teachers to conduct innovative research and teaching, and improve their professional creativity and innovation ability.

Interview 19

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovation should be unique, capable of practical application, breaking through existing frameworks and models, creative and sustainable. These characteristics help to promote social development and progress, and contribute to human development. Innovation should be sustainable and able to continuously generate impact and value in the future. Compared to other professions, university teachers are able to break free from conventional thinking and fixed patterns, and generate new, unique, and unique ideas or things.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

I currently have the idea of changing units, so I believe that the creativity of university teachers can improve our professional competitiveness, have better innovation and practical abilities, and have greater advantages in career development.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Schools should pay attention to the professional development of teachers, increase training efforts, optimize training methods, and establish professional teacher

development centers, all of which can help improve teachers' teaching innovation ability and scientific research academic level.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Provide innovation and entrepreneurship support for teachers, including entrepreneurial funds, legal advice, technical support, etc. Encourage teachers to convert research results into commercial applications, and promote technological innovation and economic development.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

We can provide more support for innovation and entrepreneurship, help university teachers translate research results into commercial applications, and promote technological innovation and economic development. For example, more entrepreneurial funds, legal advice, technical support, etc. can be provided to encourage teachers to engage in innovation and entrepreneurship.

Interview 20

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovation is unique and everyone has it, but it requires the integration of resources to achieve the greatest effect and even promote the progress of human civilization. Therefore, the higher authorities of universities in Chongqing can strengthen team cooperation, collaborate with other teachers, jointly complete teaching and research tasks, and achieve complementary advantages and resource sharing. In this way, the effect in universities will also be the best.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

I believe that the creativity of university teachers can cultivate students' innovative and practical abilities. Through innovative teaching methods and means, they can guide students to engage in creative thinking and problem-solving, cultivate students' innovative and practical abilities, and lay a solid foundation for their future development.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The teacher management system affects the development of innovation. A sound teacher management system, including the development of employment standards, unified deployment of teaching innovation teams, and strengthening the selection, training and assessment of team members, can improve the quality of team members, optimize the team structure, and ensure the healthy development of teaching innovation teams.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Improving the professional creativity and innovation ability of university teachers in Chongqing requires support and management from schools and education departments, including providing a good institutional environment, exchange opportunities, encouraging group development, and establishing innovation reward mechanisms. These measures can encourage teachers to conduct innovative research and teaching, enhance their professional creativity and innovation ability, and promote academic progress and social development.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Encourage teachers to attach importance to personal development, continuously improve their teaching level and professional quality, and thus enhance their creativity. Encourage teachers to try new ideas and solutions in their teaching and work, tolerate failure, and thus motivate teachers to innovate.

Interview 21

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

The professional creativity and innovation of university teachers in Chongqing are constantly developing and improving. Through continuous learning and practice, they constantly challenge themselves and break through their limits. At the same time, they have a good spirit of teamwork and collaboration, making greater contributions to cultivating innovative talents and promoting social innovation.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

The most important aspect of creativity in universities is innovation in teaching. Teachers can continuously explore new teaching methods and means to improve teaching effectiveness and students' learning abilities. For example, using multimedia technology to create teaching courseware and develop online courses can improve teaching efficiency and effectiveness. However, we have some ideas now, but their implementation is still not good enough.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Personalized learning, raising new questions, exploring new fields, advocating independent learning, and emphasizing the cultivation of one's own learning attitude, learning methods, learning ability, and innovative spirit are the influencing factors.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Do more thinking and association, by using methods such as mind mapping and brainstorming, to connect previously unrelated things together and create new ideas and ideas.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Teachers should try new teaching methods and models to enhance their creativity and innovation. Provide teachers with necessary teaching resources and support, such as teaching software, textbooks, equipment, etc., in order to provide a better teaching environment and enhance their creativity. Establish an effective feedback mechanism to provide timely feedback on teachers' teaching situation and innovative abilities, in order to provide better guidance and support for teachers.

Interview 22

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

The essence of creativity lies in continuous innovation and promoting social development. As the main force of knowledge and technological innovation, university teachers constantly explore and discover new problems, propose new

solutions and ideas, generate innovative ideas and perspectives, and promote the progress and development of disciplines and fields.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

I will actively stimulate my learning ability and innovative thinking, continuously explore new fields and problem-solving methods, and improve my overall quality and competitiveness as a teacher. Believing that creativity can propose new work methods and processes, improve work efficiency and quality, while also helping to reduce costs and improve production efficiency.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Personal values, expectations, and standards can also affect teachers' professional creativity and innovation ability. In a social culture that encourages innovation and tolerates failure, teachers are more likely to try new ideas and solutions.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Maintaining curiosity about things around us, constantly exploring and discovering new things, can stimulate our creativity.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Chongqing can promote an innovative cultural atmosphere, encourage universities to establish an innovative cultural atmosphere, encourage teachers to try new teaching methods and methods, explore new research directions and fields, and encourage teachers to conduct innovative research and teaching. At the same time, activities such as innovation competitions and forums can also be held to promote the exchange and collision of innovative ideas.

Interview 23

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovative methods, technological achievements transformation, etc., as long as they are innovative, are contributions to social progress and development, promoting

social development and progress. The professional creativity of university teachers is a comprehensive ability that requires them to constantly learn and practice, constantly challenge themselves and break through their limits. At the same time, they need to have a good spirit of teamwork and collaboration, and work together with others to achieve innovation and development.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Creativity in work also helps to realize personal value and drive personal growth. Especially after school, university teachers should be encouraged to unleash their creativity, and necessary support and training should be provided to contribute to personal development and school progress. However, currently it is all coordinated arrangements, and there is no school that is unique in achieving the systematic development of teacher creativity.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Will it utilize the internet and information technology that are already ahead of innovation, flexibly utilize online courses, learning resources, and learning platforms, freely choose learning content and time, and achieve maximum learning? This will affect creativity.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Provide innovation and entrepreneurship support for teachers, including entrepreneurial funds, legal advice, technical support, etc. Encourage teachers to convert research results into commercial applications, and promote technological innovation and economic development.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Chongqing evaluates the innovation ability of university teachers through statistical analysis of their research achievements, including publishing papers, undertaking research projects, and obtaining patents.

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Creativity refers to the ability to generate new, useful, and original ideas, things, or problem-solving methods. Creativity not only refers to art or invention, but also includes innovation and breakthroughs in fields such as science, technology, culture, and economy. The creativity of university teachers is the most concentrated aspect of the entire creativity.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Professional innovation in the work of university teachers helps to improve teaching quality and research level. Therefore, we should actively explore new teaching methods and means, conduct cutting-edge scientific research, participate in social services and applied research, expand academic horizons and improve academic level, and make contributions to the development of individuals and society. Among them, I believe that innovative thinking patterns are the most important.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Individual autonomy and independence encourage people to think, make decisions, and innovate independently, and this autonomy is the most important.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Cultivating good habits can make our thinking clearer, improve our efficiency and creativity. For example, making plans, persistently exercising, and developing reading habits.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

The government guides the creation of a free, relaxed, and inclusive environment, encourages teachers to think freely and create freely, and stimulates creative enthusiasm and creativity. This is what I crave the most. Cultivate creative thinking through methods such as reverse thinking, fantasy, and association, thereby generating more unique and innovative creativity.

Interview 25

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Creativity is a very important ability that can help people solve practical problems, promote social progress and development. Creativity requires an open, flexible, and diverse way of thinking, a spirit of daring to explore and try, and an attitude of constantly learning and improving oneself. At the same time, creativity also requires a spirit of teamwork and collaboration, which needs to be respected by everyone.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Creativity can help teachers think from different perspectives and solutions to problems, thus finding better solutions. It can help teachers imagine and develop new teaching methods and systems, meet the needs of students and knowledge, and help improve teachers' work efficiency and reduce costs. Creativity is the foundation of innovation, which can help me create a better work environment and atmosphere, and improve job satisfaction.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The personal quality of teachers is a key factor affecting their professional creativity and innovation. People with creative and innovative thinking are more likely to generate new ideas and solutions. The needs and challenges for innovation vary among different disciplines. Newer subject areas are more likely to require innovation, providing teachers with more opportunities for innovation.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Schools should establish a cultural atmosphere that encourages innovation, encourages teachers to try new teaching methods and methods, explores new research directions and fields, and encourages teachers to conduct innovative research and teaching. Provide comprehensive support and services for teachers, including mental health consultation, family care, career development guidance, etc., to help teachers solve personal and professional problems and better develop their creativity and innovation ability.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Encourage and motivate teachers to continuously learn new knowledge, accumulate experience, and obtain more inspiration and inspiration from it, providing more energy for the development of creativity. Encourage team collaboration, leverage the strengths of team members, inspire and communicate with each other, and generate better ideas.

Interview 26

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovative thinking can be cultivated through training courses to develop innovative thinking and problem-solving abilities. Continuously learning new knowledge, understanding the cutting-edge dynamics of the discipline, expanding the scope of knowledge, improving one's overall quality, actively participating in scientific research projects, improving one's scientific research ability, discovering and solving scientific problems, and generating innovative results are common in universities.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

My focus is only on academic exchange and innovation, which currently accounts for two-thirds of my work. Teachers can participate in academic exchange activities such as conferences and seminars to exchange academic ideas and research results with other scholars, expand their academic horizons and improve academic standards. More importantly, how to ensure the dynamic and timely nature of scientific research is my own problem, I also hope that the school can provide relevant assistance and guidance.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The educational background and training of teachers have an impact on their professional creativity and innovation ability. Teachers who possess a wide range of knowledge and skills, as well as those who have received training in academic and research environments, are more likely to be creative and innovative.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are

any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

The educational background and training of university teachers in Chongqing have an impact on their professional creativity and innovation ability. Teachers who possess a wide range of knowledge and skills, as well as those who have received training in academic and research environments, are more likely to be creative and innovative. Especially, the provided work environment should have a significant impact on teachers' professional creativity and innovation ability.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Encourage teachers to participate in various types of training and learning, continuously update their knowledge and skills, and improve their professional literacy and innovation ability. Protect teachers' intellectual property rights, encourage them to apply for patents and publish high-level academic papers, and stimulate their innovation enthusiasm and enthusiasm.

Interview 27

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

University teachers are generally able to master and apply advanced technologies and tools, constantly explore and try new technologies, resulting in innovative technological achievements and promoting the progress of disciplines and fields. There are also many innovative achievements that can be generated through scientific research and social services, including papers, patents, achievement transformation, etc., and contribute to social progress and development

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Professional innovation in the work of university teachers is very important. For me, creativity can drive my growth and development, continuously improve my skills and knowledge level, and realize personal value; It can help me improve teaching quality and research level, stimulate my learning ability and innovative thinking. With the support of the school, it can also improve work efficiency and team cooperation ability, achieving a win-win situation for myself and the school.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The personal motivation and willingness of teachers are also a factor that affects their professional creativity and innovation. Whether teachers are willing to take risks and try new ideas and solutions, as well as whether they have a self driven motivation to innovate, will have an impact on their professional creativity and innovation ability.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Teachers provide a comprehensive support system, including psychological counseling, family care, career development guidance, etc., to help teachers solve personal and professional problems, and better unleash their creativity and innovation abilities.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Strengthen cooperation between universities, industries, and enterprises, jointly carry out research and development, promote the transformation of scientific and technological achievements, and enhance teachers' innovation ability and practical experience. Encourage teachers to form teams, conduct research and work together, leverage the strengths of team members, inspire and communicate with each other, and generate better creativity and results.

Interview 28

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

Innovative thinking should be the focus, constantly exploring and discovering new problems, proposing new solutions and ideas, and generating innovative ideas and perspectives is the core issue of creativity.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Innovative teaching methods can enhance students' interest and participation in learning, their needs, and the characteristics of the subject. By flexibly utilizing various teaching methods, teaching quality and effectiveness can be improved, while also improving teachers' teaching level and professional literacy. This is just one aspect of innovation. As a teacher, as long as you are willing to use your brain to think, you will definitely gain something.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

The professional creativity and innovation of university teachers in Chongqing are influenced by various factors. The school encourages teachers to closely follow technological development and market changes, form interdisciplinary composite teaching teams, consolidate development directions, and form innovative teaching teams with staggered development, complementary abilities, and optimized structure. The characteristic of a teacher innovation team is the dual nature of industry and education, which also helps to improve teachers' professional creativity and innovation ability.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Encourage teachers to try new teaching methods and means, such as reverse classroom, online teaching, team collaboration, etc., in order to change traditional classroom teaching models, improve teaching effectiveness and student participation.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Encourage university teachers to participate in innovation projects to see if they can translate research results into commercial applications and have innovative capabilities.

Interview 29

1. What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

There are too many aspects involved in creativity. For schools, exploring new teaching methods and means, improving teaching effectiveness and quality, cultivating students' innovative and practical abilities. Collaborating with other teachers to complete scientific research exchanges, and generating innovative ideas and results through various channels are all aspects of creativity.

2. How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

Innovation is now quite common, such as using internet technology in online teaching, making teaching more convenient and diverse through online courses,

teaching videos, teaching software, and other means. It can meet students' different learning needs, improve their learning interest and autonomy. These were unimaginable in the past, but now they are all achieved through innovation. Accurate teaching and personalized tutoring allow students to receive more attention and guidance, enhance their learning interest and sense of achievement, and make the work of teachers easier. So I know the benefits of innovation.

3.What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Insufficient teaching resources, limited research funding, and poor academic environment can all have a negative impact on teachers' creativity and innovation.

4.Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Provide incentive mechanisms to encourage teachers to conduct innovative research and teaching, such as providing bonuses, promotion opportunities, etc. Establish a teaching innovation team, encourage cooperation and communication among teachers, and enhance the teaching level and innovation ability of the team.

5.What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Chongqing evaluates the teaching quality of university teachers through student evaluation, peer evaluation, expert evaluation, and other methods to see if they adopt innovative teaching methods and means, and whether they can cultivate students' innovation ability and professional creativity.

Interview 30

1.What do you think is creativity and innovation? What do you think is the professional creativity and innovation of university teachers in Chongqing?

University teachers can propose innovative methods and means to address different issues and fields, improve and enhance existing teaching methods and means, thereby improving teaching effectiveness and quality, and achieving improvement.

2.How do you think professional creativity and innovation affect your work? How do you evaluate the professional creativity and innovation of university teachers?

The understanding of creativity in work is very important, and I am interested in learning because everyone actively engages in innovative projects. So I believe that

innovative thinking is the most important, and the subtle influence of the environment is also very important. With consciousness, there will be action and future development.

3. What factors do you think have improved or limited the professional creativity and innovation of university teachers? What factors do you think have improved or limited the professional creativity and innovation of university teachers in Chongqing?

Teachers' teaching tasks are too heavy, lacking sufficient time and energy for in-depth research and innovation, which may also limit their creativity and innovation ability.

4. Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers? Do you think there are any good suggestions for improving the professional creativity and innovation development of university teachers in Chongqing?

Establishing an innovation project team is the most important, encouraging collaboration among teachers from different disciplines, promoting interdisciplinary knowledge exchange and collision of ideas, thereby stimulating innovative thinking and generating new solutions.

5. What is your opinion on the existing policies and guidelines for the professional creativity and innovation of university teachers in Chongqing? What areas do you think can be improved from?

Evaluate the professional creativity of teachers through indicators such as their academic reputation and influence. Support teachers to carry out Transdisciplinarity, promote knowledge exchange and integration in different fields, and generate new academic ideas and research results.

In this interview survey, the total number of questions is 5. Because the understanding and views of professional creativity and innovation among university teachers, as well as the evaluation of professional creativity and innovation among university teachers, are relatively consistent during the interview response organization, they are combined into one table for the interview coding organization; The influencing factors of professional creativity and innovation of university teachers and the development of professional creativity and innovation of university teachers are also integrated into two codes. Moreover, because the influencing factors are very important for the

subsequent analysis of this study, the four aspects that are most involved in the influencing factors are separately coded to form six coding tables. The last question is about the opinions and evaluations of the Guidelines for Professional Creativity and Innovation of University Teachers. The coding significance is not significant, and the interview results were finally organized to form suggestions.

Appendix E
Certificate of English

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RAJABHAT UNIVERSITY

This is to certify that

Miss Hongque Li

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C2

Given on 3rd October 2020



(Assistant Professor Dr Kulirin Aphiratvoradej)
Director

Appendix F
The Document for Acceptance Research

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Acceptance Letter

Dear Author(s): Hongque Li, Buranajit Kaewsrinmol, Niran Sutheeniran, Patchara Dechhome

Paper ID	JHEU_22
Paper Title	Strategies for Developing the Vocational Creative and Innovation Abilities of University Teachers in Chongqing

This is to enlighten you that the above manuscript was reviewed and appraised by the review committee members of **IFERP** and it is accepted for the purpose of publication in the “**Journal of Harbin Engineering University (JHEU)**”.

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